Research report

Predictors of attitudes to age across Europe

by Dominic Abrams, Christin-Melanie Vauclair and Hannah Swift

DWP Department for Work and Pensions

Department for Work and Pensions

Research Report No 735

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Dominic Abrams, Christin-Melanie Vauclair and Hannah Swift

A report of research carried out by the Centre for the Study of Group Processes, University of Kent on behalf of the Department for Work and Pensions

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Department for Work and Pensions, Commercial Support and Knowledge Management Team,
Upper Ground Floor, Steel City House, West Street, Sheffield S1 2GQ

First published 2011.

ISBN 978 1 84712 961 1

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Acknowledgements

This report is the result of the substantial effort and contribution from a number of colleagues at the Centre for the Study of Group Processes at the University of Kent. We thank Christopher Bratt and are grateful for administrative support from Lizanne Allcock.

We also benefited greatly from comments from, and discussions with, members of the European Social Survey Central Coordinating Team, particularly Roger Jowell, Rory Fitzgerald and Sally Widdop (City University). The design of the final (2008) survey was shared with Luisa Lima and Sibila Marques (Instituto Superior de Ciências do Trabalho e da Empresa, Lisbon), and Geneviève Coudin (Université Paris 5).

The organisation and preparation of this report, as well as detailed commentary, benefited from the expertise and guidance of Maxine Willitts, Principal Research Officer, Claire Frew, Senior Research Officer and colleagues within the Ageing Society Directorate at the Department for Work and Pensions.

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Summary

Introduction – age in a European context (Chapter 1)

There is a steadily growing body of research on attitudes to age, but no previous research has systematically assessed the impact of both the societal context and psychological factors on attitudes to age and experiences of ageism. This report is the first to examine the distinctive effects of differences between individuals and differences between countries in the European region on people's attitudes toward old age (that is beyond the age of 70), and on their experiences of ageism.

As the population of the European region ages, in some countries faster than others, Governments and policy makers are grappling with the question of how to change people's perceptions and expectations about ageing so that societies can adapt to these changes. There is general pressure on pension provision, care and health services, and also increasing pressures on younger people to plan now, financially and practically, for their own ageing as well as being called upon to care for older people. Yet, arguably, political response to these changes has been relatively slow. In particular, there does not appear to be an explicit analysis of how public attitudes may either fit or conflict with policy developments.

The most extensive representative prior survey research on people's attitudes to age and ageing has been conducted in the United Kingdom (UK), supported by Age UK and the Department for Work and Pensions (Abrams, Eilola and Swift, 2009; Age Concern England, 2004). Our previous report (Abrams *et al*., 2009) revealed a clear picture of the potentially damaging age stereotypes that exist and the way that these are likely to be manifested in various forms of prejudice. Ageism, whether blatant and hostile or more subtle, can harm people's life chances, their self-concept, and their abilities. Ageism is also a form of social exclusion. Age prejudice is experienced by a larger proportion of the UK population than any other type of prejudice, so it is a significant societal problem.

The previous survey evidence revealed some of the individual characteristics (such as gender or socio-economic status) that can affect people's attitudes and experiences. However, the changes occurring demographically in the European region are **structural** – they are characteristics that people share because of features of their situation that are shared with others. Examining how structural differences, such as particular policies adopted by different countries, or their level of wealth, affects these perceptions can give us an important insight into how such perceptions are likely to change as the situation of any particular country changes (for example, from higher to lower Gross Domestic Product (GDP) or higher to lower levels of inequality). Sometimes, across groups or countries, patterns of data observed at the individual level (for example, a positive relationship between wealth and longevity) might actually be a result of patterns at a higher level (for example, that richer countries have better health care systems). Disentangling the impact of individual factors from that of structural factors is, therefore, very important, and is a central focus of this report.

The research for this report was conducted using European Social Survey 2008/09 data, which provides representative samples from 28 countries belonging to the European region. The survey methodology was based on computer-based personal interviews, with samples of between 1,215 and 2,576 people aged 15 years and over in 2008 or 2009. Within this survey the EUR-AGE research group designed a module on attitudes to age and experiences of ageism. Following a detailed assessment, a relevant set of measures was selected for analysis in the present research. These reflect seven key domains, described below. Often, the questions focused on perceptions of people

aged over 70, an age boundary that was chosen because it is one beyond which most people believe 'old age' has begun.

The module, and to some extent this report, was also guided by theoretical models from social psychology and sociology. Among the psychological theories are social identity and self-categorisation theory (which focus on the way people categorise one another, and hence who they are likely to stereotype), stereotype content theory (why particular groups are stereotyped in particular ways), intergroup threat theory (how different types of threat give rise to prejudice), and intergroup contact theory (the idea that friendship across group boundaries can reduce intergroup prejudice. Sociological theories include modernisation theory (the idea that more modernised, perhaps urbanised and wealthy, societies devaluate the status of older people) and theories of culture (for example, that characterise differences between countries in terms of the extent to which they value embeddedness or autonomy).

We examine how people's age and other demographic characteristics combine with different characteristics of the countries in which they dwell to affect responses to 13 measures that include the following seven issues:

- How people categorise one another as young and old, and identify with their own age group.
- How high or low a status people associate with people aged over 70.
- The extent to which people perceive those aged over 70 to be a threat to the health system or the economy.
- Perceptions of stereotypes of people aged over 70.
- How positively or negatively people feel towards those aged over 70 (direct prejudice).
- People's experiences of ageist prejudice against themselves.
- The number of friends people have who are aged over 70.

Understanding both the individual and the structural ('country-level') factors that influence these measures can help us to predict and understand where problems of ageism or age misperception are most likely to arise, which in turn can inform strategies and policies.

Methodology, the European Social Survey, measures of perceptions about age, and the multi-level approach (Chapters 2 and 3, and Appendices)

Chapter 2 provides an explanation of the multi-level modelling approach. Although, strictly speaking, the modelling approach is correlational in nature, it allows causal reasoning.

The appendices provide more detailed information about the wording of questions, the relationships among the variables and other features of measurement or design. To justify the analysis we want to pursue it is obviously relevant to establish whether or not there exist differences in the way people from different countries respond to the survey questions asked.

Chapter 3 describes these differences and shows that, across most of the seven types of measure (with the exception of age categorisation and identification), there are substantial differences among countries. For example, Cyprus and Bulgaria accord respectively the highest and lowest status to people over 70, while Denmark and the Czech Republic are respectively where the lowest and highest proportions of people report experiencing ageism. Differences between countries do

not fall into the same pattern across all measures. It is not the case that the same countries always come top and other countries always come bottom of the rank order. This means that it is necessary to find a basis for differences in responses to the survey questions by inspecting various country-level indicators for the differences that exist.

After detailed analysis and selection to avoid duplication, a set of distinctive indicators of country-level characteristics was assembled. Based on reliable international databases, each country was assigned a score on each indicator. The following country-level indicators were used:

- Affluence: Gross Domestic Product Index (GDPI).
- Inequality of income distribution in society: Gini index.
- Age legislation: State pension age (for men).
- Age structure: Proportion of population aged 65 or over.
- Unemployment: Unemployment rate (per cent of the labour force that are without jobs).
- Urbanisation: Proportion of the total population living in urban areas.
- Cultural values: The extent to which the country places a relatively high value on personal autonomy (such as individual independence) or embeddedness (such as family and elders).

There is substantial variation between countries in their standing on these indexes. For example, whereas Norway has the highest and the Ukraine has the lowest GDPI score, Turkey has the highest and Denmark has the lowest level of inequality. Importantly, the indexes reflect distinct types of characteristic so we are able to evaluate the unique impact of each type of characteristic on people's responses to the survey questions.

The research also measured relevant individual indicators. These are characteristics that can vary between individuals within countries, and included the following (see Appendix A for more information on how these indicators were measured):

- age;
- gender (females compared to males);
- education (with higher scores indicating higher education);
- subjective poverty (with higher scores indicating higher subjective poverty);
- ethnic minority membership (people belonging to an ethnic minority compared to people not belonging to an ethnic minority within their country);
- working status (people who have a paid working status compared to people who have no paid working status);
- residential area (people living in urban areas compared to people living in rural areas).

With the exception of subjective poverty, the relationship between these individual characteristics and age attitudes within the UK was assessed by Abrams *et al*., 2009.

Tests of the individual and country-level effects (Chapter 4)

Chapter 4 describes 13 multi-level model tests across the seven themes described earlier. These tests combine country and individual-level indicators to test how well variables at each level uniquely predict survey responses once effects of the other variables within and between levels are accounted for.

These show some important and clear findings. First, and most simply, the individual-level and country-level indexes do independently account for people's responses to the measures. This verifies that the multi-level analysis approach is warranted.

Second, within the individual- and country-levels, different variables predict responses to particular measures. For example, considering the individual-level predictors, perceptions of how much people aged over 70 contribute to the economy are affected by whether respondents belong to an ethnic minority group, but not by their level of education. Conversely, perceptions of the extent to which society stereotypes people over 70 as competent are affected by respondents' educational level but not their ethnic minority membership. A similar example can be given from the country-level variables. Perceptions that people aged over 70 contribute to the economy are affected by a country's GDP but not by its unemployment level. Conversely, perceptions of the extent to which society stereotypes people over 70 as competent are affected by unemployment rates, but not by the country's GDP.

The multi-level model tests confirm that different elements contribute to the way people responded to each of the seven types of measure. Moreover, responses to some measures were predominantly predicted from only the individual-level, whereas responses to others were affected by both the individual- and the country-levels.

Key findings and conclusions (Chapter 5)

Chapter 5 provides an integrated summary of the key findings. These are then discussed in terms of the way each individual- and country-level indicator affected the seven types of measure.

The effects of individuals' characteristics can be summarised as follows:

- Age: Older people are more favourable towards older people, younger people are less so.
- Gender: Women are more favourable towards older people and regard ageism to be a more serious issue.
- Education: People who are better educated are more conscious of ageism but do not feel so strongly affected by it personally.
- Subjective poverty: Those who feel subjectively poorer are also relatively less favourable towards people aged over 70.
- Ethnic minority membership: People belonging to an ethnic minority group within their country perceive old age as starting earlier but also perceive that people aged over 70 make a larger contribution to the economy.
- Working status: People who are in, rather than not in, work are more likely to believe youth lasts longer and to perceive that people over 70 have lower status, but that they make a larger contribution to the economy.
- Residential area: compared with rural dwellers, urban dwellers perceive old age as beginning earlier and they have less favourable views of people aged over 70, while also being less likely to have close social relationships with people aged over 70.

Thus, whereas being older or female are associated with more favourable views of people aged over 70, being an urban dweller, in work or subjectively poor are associated with less favourable views of people aged over 70. This may suggest that any strategies to influence negative attitudes toward older people may need to target some of the effort at those particular sections of the population (or particular types of people within organisations).

The effects of country-level characteristics can be summarised as follows:

- GDP: Views of people over 70 are more favourable in countries that have higher levels of GDP.
- Inequality of income distribution (Gini index): Evaluations of people over 70, at least in terms of status, are somewhat more positive in countries with higher levels of inequality.
- Age legislation (State Pension age for men): Older people's status (those aged over 70) is perceived to be higher in countries that have later State Pension ages.
- Unemployment (unemployment rate): People aged over 70 are judged to be less competent (the most damaging feature of the elderly stereotype) in countries with higher unemployment rates.
- Age structure: Countries with a relatively larger proportion of their population aged 65 and over are ones in which people (regardless of their own age) hold more positive views of people aged over 70.
- Urbanisation: In populations that are more urbanised there are fewer people whose close friends are aged over 70.
- Cultural values: In countries whose values can be characterised as emphasising personal autonomy (such as individual independence), people feel more positive towards those who are aged over 70, and also experience lower levels of ageism.

Taken together, the populations that hold the most positive views of older people are in countries that have higher GDP per capita, those with later State Pension ages and a higher proportion of people aged over 65, and those that value autonomy more. This is also true of countries with greater levels of overall inequality.

These findings point to some potentially important issues for policy, as well as for future research. First, it is clear that ageism is a problem in the European region and remains a problem for the UK (Abrams *et al.*, 2009). Within any particular country, such as the UK, there are many good reasons and plenty of scope to promote strategies that will increase the inclusion of, and opportunities for, older people. It seems likely that effective strategies will need to focus on challenging patronising stereotypes of old age and tackling people's negative assumptions about older workers.

What this research highlights is that these strategies may be developed effectively at both the individual and the structural levels of implementation. As an example, consider the aims of encouraging employers to retain and employ older workers, and encouraging older individuals to seek work. To achieve these it might be effective to try to enhance the perceived social status of older workers. At the individual level, it might be sensible to start by addressing people's stereotypes and assumptions. In addition, the evidence of country-level effects of State Pension ages suggests that an effective legislative approach may be to create a structure that facilitates a clear framework for variable retirement and pension ages. This might reflect different types of work and levels of ability or performance rather than highlighting a general age norm for commitment of pension benefits. This would remove the structural 'bar' to employment that people associate with traditional retirement ages.

Overall, this research has, for the first time, provided a large scale and comprehensive analysis of the distinctive contribution that both individual and social structural (country-level) factors make to people's attitudes to old age and experiences of ageism.

Inevitably, more work is now needed. First, we need to investigate additional structural variables that can help to explain the quite substantial differences in people's perceptions of the onset of old age. While the present work focused on country differences and variables such as GDP, there are likely also to be regional and local economic or other structural differences that might be important. Second, more research is needed to understand why countries that are objectively more equal actually seem to hold less favourable attitudes towards older people. This is a puzzling finding and we hesitantly speculate that it might be because unequal countries tend to accord greater status, prestige, respect or power to elders. Third, we want to understand more about the extent to which ageism affects different age groups (younger and older or the very old) in different ways, and what the structural reasons for this might be. The present report focused on social attitudes toward people aged over 70, but we are very conscious that age is a continuum and that significant (and different) issues affect people of all ages. Finally, the research literature suggests that reducing prejudice and discrimination is likely to reap benefits psychologically, socially and economically, not just for older people, but for society as a whole. Within the UK we need to ensure that we monitor how societal changes such as changing levels of unemployment, the ageing population, and various types of inequality affect ageism and age discrimination. Seeking and finding answers to these questions will equip us to ensure that society becomes more age-friendly, inclusive and enabling.

1 Introduction

Europe's population is ageing rapidly, a phenomenon that has also been labelled the 'Greying of Europe' because of the increase in Europe's elderly population relative to its workforce. This phenomenon poses a number of challenges to the European Union as a geopolitical region and also to the United Kingdom (UK). One of these is age discrimination which prevents the social inclusion of elderly people. Many older people are excluded from opportunities because of negative attitudes and age stereotypes (Abrams *et al*., 2009).

Age discrimination has a negative impact both on individuals and on society as a whole. It creates significant costs, for example through lost productivity of older workers and long term health costs of those excluded from economic activity (The European Older People's Platform, 2007). Hence, it is vital to be able to influence people's attitudes about age in order to counter problematic stereotypes and to develop strategies that will increase the social inclusion of older people. Understanding the psychological and societal mechanisms that lead to negative age attitudes and stereotypes is an essential part of this process.

This research analysed comprehensive data from 28 countries surveyed in the European Social Survey (ESS) (4th round, 2008)[1]. These are all from the geographic region of Europe (with the addition of Israel). Nearly 55,000 people answered the *Age Attitudes and Experiences of Ageism Module* in Round 4 of the ESS. We also examine additional evidence about differences among these countries to illuminate the societal and psychological bases of age related attitudes and prejudice. Based on previous work (Vauclair, Abrams and Bratt, 2010), we focus on seven key indicators relevant to age perceptions and prejudice and we consider two general questions:

- What personal characteristics and socio-demographic factors predict people's attitudes to age?
- What important differences exist between countries and can we identify particular factors that are responsible for those differences?

We consider these two issues in an integrated analysis to show how personal and country characteristics combine to contribute to differences in age attitudes.

This chapter introduces the theoretical and practical context for this research. First, the importance of studying attitudes to age from a psychological and societal perspective is outlined, followed by a brief review of past research and relevant theories. Chapter 2 presents the methodological framework as well as the psychological and societal variables used in this research. The results are provided in Chapter 3. The key findings are discussed in Chapter 5 and the Appendices provide further empirical evidence as well as statistical and procedural details.

[1] Belgium (BE), Bulgaria (BG), Switzerland (CH), Cyprus (CY), Czech Republic (CZ), Germany (DE), Denmark (DK), Estonia (EE), Spain (ES), Finland (FI), France (FR), United Kingdom (UK), Greece (GR), Croatia (HR), Hungary (HU), Israel (IL), Latvia (LV), Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Russian Federation (RU), Sweden (SE), Slovenia (SI), Slovakia (SK), Turkey (TR), Ukraine (UA).

1.1 Background

Ageing is a central issue for the European region due to the increasing elderly population and their health and social welfare needs. In a global context, Europe is one of the regions with the highest proportions of older people and projections are for a continuous rise in life expectancy over future decades (Council of Europe, 2005). Europe's median age (37.7) compares with a world median of 26.4. However, this masks substantial differences among countries. These national variations enable us to compare how differences between countries relate to social attitudes and expectations, and to gain important insights into the likely areas of social cohesion, schism and change.

The issue of an ageing population is also important in the UK. Current projections state that a quarter of the population in the UK will be aged 65 years and over by the year 2034 (Office for National Statistics[2]). At the same time, government figures in the UK have estimated the costs of social exclusion of older people (such as the drop of work rates among the over-50s since 1979) to be about £16 billion a year in lost Gross Domestic Product (GDP) and further costs of £3–5 billion in extra benefits and lost taxes (Cabinet Office, 2000). The European Union recognises that people's beliefs, attitudes, experiences and expectations about ageing are important for the way they respond to these challenges today and in the future. These issues may well be more difficult or complex in countries that have a relatively higher economic or health requirement from older people, or have less capacity to respond to their changing needs and expectations. Given the increases in life expectancy seen in the recent past, increases in State Pension age will help manage the increasing costs of longevity and so help keep the State Pension sustainable. Allied to this is increasing the labour market participation of older people by, for example, removing the default retirement age (www.bis.gov.uk/retirement-age). However, other pressures, perhaps from younger people and from employers, as well as government departments with a concern to reduce youth unemployment, may emphasise the value of employing younger, possibly cheaper, workers. Although studies by Gruber (2009) and Kalwij (2009) show that there is no evidence that increasing the employment of older persons will reduce the employment opportunities for younger people. This changing landscape may well involve tension around many of the possible advantages and disadvantages of including older people in work and other activities. People's judgements about these advantages seem likely to be based not just on objective evidence but on their stereotypes, attitudes and own interests.

Ageism, or age discrimination, is stereotyping of and discrimination against individuals or groups because of their age. Age, just like gender and ethnicity, serves as a primary perceptual cue people use to categorise one another. When people categorise one another into broad categories such as 'young' and 'old' they also tend to make implicit inferences about people's abilities, competences and skills. The present research is primarily concerned with the question of ageism towards older people. This is not to disregard the very important issue of ageism against younger people, but that will require a separate report in its own right because it takes a distinct form and has quite distinct content from ageism directed at older people. Where relevant, however, we allude to differences in attitudes towards younger and older people.

Stereotyping can be a basis for ageist prejudice – an emotional response to the cognitive process of categorisation. For instance, social psychological research has found that a form of 'benevolent', or more precisely, paternalistic, prejudice is felt towards older people. This is manifested in feelings of pity, which ensues from stereotyping them as 'friendly' (or nice) but incompetent (Abrams *et al*., 2009; Cuddy, Norton and Fiske, 2005; Age Concern England, 2005; Ray, Sharp and Abrams, 2006). Research on stereotypes more generally shows that groups that are perceived as incompetent are

[2] Online source: http://www.statistics.gov.uk/cci/nugget.asp?id=949, retrieved December 2010.

likely to elicit 'passive harm' by being socially excluded (Fiske, Cuddy and Glick, 2007). Examples of ageist behaviours based on the stereotype of incompetence are also discriminatory practices against older people in the workplace, exhibited in decisions about hiring, training and firing (McCann and Giles, 2002).

Negative attitudes to old age can be traced back to people's assumption that there is an age-related decline in older people's mental and physical functioning. Despite a great deal of research, there does not appear to be much evidence for a convincing linear connection between increasing age and declining health and capability. For instance, although older people process information more slowly, which has an impact on their abilities in the workplace (Warr, 2000), age-related changes are twice as likely in those over the age of 85 (Pasupathi and Löckenhoff, 2002) compared with less elderly people. This suggests that age-related cognitive decline is associated with the end of life rather than being driven incrementally by age. Indeed, evidence suggests that younger workers are no better overall at their jobs than older workers, and that age differences in performance are not necessarily due to age. For example, conclusions that older people might be slower learners may merely reflect cohort differences in levels of educational qualifications and workplace training (Nelson, 2005). Furthermore, age differences in cognitive performance can be counteracted by increased capacity in other areas, particularly previous relevant experience (Warr, 2000).

Even in terms of physical health there is something of a 'medical myth' that ageing is synonymous with disease (Sidell, 1995). Decreased physical function is affected by socio-economic status, working in hazardous occupations and even living in council housing. Age itself is not necessarily the key determinant (Bowling, 2005; Pasupathi and Löckenhoff, 2002). Ageing can also have positive implications for well-being. For example, older adults report more positive emotions in solving everyday problems when compared to younger adults (Blanchard-Fields, Chen and Norris, 1997).

Despite the objective evidence, older people view ill health and old age as strongly linked (Fee, Cronin, Simmons and Choudry, 1999; Sidell, 1995). It seems likely that this is because they internalise negative stereotypes. Experimental research shows that exposure to negative stereotypes harms older people's physical capability and health (Krauss, Whitbourne and Sneed, 2002) as well as mental capabilities (Hess, Auman, Colcombe and Rahhal, 2003). Internalised negative stereotypes can also cause extra stress responses (such as increased heart rate, blood pressure and skin conductance) when people are asked to complete tasks that are stereotypically challenging to someone of 'their age' (Levy and Banaji, 2002). Moreover, even the threat of stereotypes, raised by explicitly comparing an older person with younger people, can be sufficient to reduce mathematical and cognitive performance by as much as 50 per cent (Abrams *et al*., 2008).

A recent longitudinal study (Levy, Slade, Kunkel and Kasl, 2002) demonstrated that older people with more positive self-perceptions of ageing lived 7.5 years longer than those with less positive self-perceptions after controlling for gender, socio-economic status, functional health, and loneliness. Older people who accept negative images of ageing are also more likely to attribute their problems to the ageing process and therefore, fail to seek necessary medical assistance. Some older people may also minimise their health problems as a deliberate method of denying negative stereotypes (Sidell, 1995). Older people are sometimes reluctant to visit medical professionals, even to the point of rejecting lifesaving treatment, because of perceived ageism in the system (Fee *et al*., 1999; Golub, Filipowicz and Langer, 2002). More recently, the Centre for Policy on Ageing (CPA) reviewed the extent and prevalence of age discrimination in primary and secondary health care. They revealed widespread evidence for the unjustified differential treatment of older patients and identified inadequate services and a lack of understanding of older people's needs (CPA, 2010). Evidence from the Age Concern and Mental Health Foundation Inquiry into Mental Health and Wellbeing in Later Life found that older people themselves said that the most effective way to improve mental health and wellbeing would be to improve public attitudes to older people and mental health (Third Sector First, 2005).

These are just a few of many possible examples that illustrate the potentially profound impacts of age-based perceptions, stereotypes and attitudes on how older people view themselves and how others treat them. In summary, a very important component of the problems associated with ageing is actually the problem of ageism.

In light of these implications and Europe's ageing population, a key part of improving age attitudes and enhancing social inclusion of older people is to reveal and understand the bases of stereotypes and attitudes to old age. The ESS provides an important resource to investigate how factors such as subjective poverty, gender, age itself and other socio-demographic variables might be implicated in people's attitudes or experiences. However, it also provides a unique opportunity to understand how objective differences between countries might be responsible for differences in how people regard age.

The European region is very diverse, with important differences between European countries in terms of cultural, socio-economic, and political circumstances (Peace, Dittmann-Kohli, Westerhof and Bond, 2007). People in some countries might have more favourable or unfavourable attitudes to age, or more positive or negative experiences with age than in others. One critical task is to understand what kind of societal factors lead to more ageism and therefore, also to more negative experiences.

Investigating these issues at two levels of analyses (individual-level and country-level) can provide an insight into what kind of individual- and societal-level factors are most likely to lead to ageism. Some of the factors might be difficult to change (for example, a country's affluence), however, other factors might be more malleable (for example, cultural values and stereotypical beliefs in society). Targeted interventions can then be developed that take into account the different layers of effects that produce negative age stereotyping as shown through this research.

1.2 Past research and theory

In this section we set out the central concepts that will be treated as relevant indicators of ageism and age attitudes for the purposes of the analyses of the ESS data. We then consider relevant prior research at the individual- and country-level.

1.1.1 Research at the individual-level

Social psychological research has yielded some important findings on attitudes to age at the individual-level. It has also stimulated the development of various theories relevant to the perception of older people which are relevant to this research. Although a detailed account of these theories is beyond the scope of this report (see also Abrams, 2010), some of the key concepts will be described here.

Age categorisation and identification

Age categorisation is the process of classifying people as belonging to a certain age group, and by implication not to other age groups. Age categorisation is highly relevant to the issue of age-based discrimination. Ageism arises in relation to specific age points, particular age ranges, and also in terms of general category labels such as 'young' or 'old'. People also apply ageist stereotypes to themselves, sometimes without being aware they are doing so (Levy and Banaji, 2002). Socially and psychologically the use of age categorisation can be highly problematic because it may cause people to restrict their own horizons based on ageist assumptions (for example, they see themselves as 'too young' or 'too old' to pursue particular activities or roles). For this reason, the very act of categorising others into different age groups and the way people define those groups has significant implications for people's choices and actions.

Age identification is the extent to which people positively identify with an age category. Social Identity Theory suggests that social identity is part of the self concept that derives from group membership (Tajfel, 1981). Individuals are motivated to gain positive distinctiveness for their ingroups by comparing them favourably with other groups. Therefore, they may be less inclined to identify with age groups to which their culture assigns low levels of social value. How strongly people identify with their own age group, therefore, reveals something about their idea of the societal standing of that group, as well as whether they think they are included in acts and messages directed toward that group.

Perceived status of age groups

Age groups are associated with different roles, status, power and social responsibilities. Previous research (with limited samples) suggests that the middle-aged age group is perceived as having the highest social status, followed by young, and old age groups (Garstka, Schmitt, Branscombe and Hummert, 2004). Cuddy *et al.* (2005) also showed that older people were commonly viewed as having low status among younger people. Yet such perceptions might depend on a range of other factors. Variability in attitudes to age seems likely to reflect the different power and status relationships and more immediate contexts in which people live and work. For example, even if people consider that capability to perform work-related activities declines with age for most employees, they may not apply the same assumption when they think about older bosses. Understanding what elevates the perceived status of older people may be useful for those designing interventions to tackle negative age stereotypes.

Perceived threat posed by different age groups

To varying degrees, groups in society may be perceived as posing a challenge, or threat, to society as a whole or to important objectives of people's ingroups. Stephan and Stephan's (2000) work on inter-ethnic prejudice distinguished between different forms that these threats can take. Realistic threat relates to concerns about safety, security or health. A further type of realistic threat, economic threat, refers to the extent to which economic outcomes of one age group might be dependent on those of a different age group. Symbolic threat relates to people's values, culture and way of life.

These types of threat also seem relevant for relationships between different age groups in society. Evidence from the UK's Age Concern surveys (Abrams *et al*., 2009) suggests that older people pose little health or symbolic threat at present, but there is substantial concern about their economic impact, particularly among younger people. Economic conflicts (for example, rehiring older workers versus training younger workers) may be a basis for this resentment and prejudice.

Age stereotypes

Stereotypes are socially shared beliefs about the characteristics of the members of a social group. Stereotypes may have been learned during childhood or other periods of socialisation. Once learned, they are usually automatically 'activated' (shape perception) in situations when it is relevant to make a judgement about members of a particular social category or group. They 'essentialise', maintain, accentuate and justify the differentiation between social categories (Schneider, 2004), in other words, they provide a subjective basis for people to treat members of different groups differently.

A widely used and well supported social psychological theory of stereotyping is the Stereotype Content Model (SCM) proposed by Fiske, Cuddy, Glick and Xu (2002). The theory holds that there are two underlying dimensions that organise the stereotypes associated with any social group in a society: one dimension is competence, the degree to which a group is characterised as intelligent

and capable. The other dimension is warmth, the degree to which a group is regarded as friendly and likeable.

The particular combination of levels of competence and warmth attributed to a group is likely to reflect their status and competitiveness with other groups, and is likely to produce different types of emotional response. Cuddy *et al.'s* (2005) research with students showed that they systematically perceived older people as warm but incompetent. This pattern was also demonstrated by students from a number of different cultures. Moreover, these same perceptions are exhibited by representative samples of the UK population (Abrams *et al.*, 2009). It is also associated with feelings of pity, and generally reflects the judgement that older people are lower in status.

Direct prejudice

Theoretically, there are important distinctions between prejudice based on age and prejudice based on race or gender. First, age, unlike the other categories, is continuous. Second, everyone, if they survive long enough, can expect to be a member of both younger and older age groups. There are quite strong social inhibitions against expressing prejudice directly (for example, simply stating hostility towards a particular group). However, these seem to be less powerful in the case of age. In certain situations, or when thinking of particular contexts, people generally seem to be less cautious about expressing age prejudice explicitly (Nelson, 2002). However, it is noteworthy that discrimination can occur even when direct prejudice does not. This is especially likely if the prejudice takes the form of 'benevolence', as described earlier. In any case, an important question is what types of prejudice might be most affected by different personal and societal factors.

Experience of ageism

Negative age discrimination is the behavioural denial of a benefit or right to someone, based on the classification of a person as a member of an age group (Nelson, 2002). When considering ageism, it is not only people's attitudes and expressions of prejudice that need to be examined. Because ageism may well take rather subtle (but powerful) forms, it is also necessary to examine whether people are experiencing ageist discrimination. Here we make a distinction between people's awareness that their group suffers from discrimination and their personal experiences of being the target of discrimination. Social psychological research suggests that these two are often quite distinct, and sometimes people may rather enjoy feeling that they are unaffected by societal prejudices, while at other times they may assume that their personal experience of prejudice is not shared by other members of their groups. Thus, it is important to understand experiences of discrimination in both senses. Arguably, people may feel more able to challenge discrimination if it affects their whole group and not just themselves. Yet these perceptions might well be shaped by social and cultural factors (Garstka *et al.*, 2004).

Intergenerational contact

The extensive literature on intergroup contact (Pettigrew, 1998) demonstrates that positive experiences of contact between members of different groups can lay the ground for positive attitudes and behaviour. Positive personal relationships, especially friendships, across intergroup boundaries are likely to generalise to produce more positive attitudes and less stereotyping of the outgroup as a whole.

Related to research on contact is the idea from socio-emotional selectivity theory (Krauss *et al.*, 2002) that because of increased psychosocial maturity gained with age, older people are able to successfully control potentially negative experiences. Instead of putting themselves into situations where they could come into contact with strangers (who may hold ageist views and thus react

negatively), older people surround themselves with family and friends who will provide positive responses and help maintain the older person's positive emotional state.

Recent research also shows that older people with closer intergenerational contacts are less vulnerable to age 'priming' effects (such as activating negative associations with age in memory) on their performance. When told their performance on a cognitive test was being compared with that of younger people, older people with less intergenerational contact performed significantly worse than those with more intergenerational contact (Abrams, Eller and Bryant, 2006). Therefore, an important indicator of a group's risk of discrimination or social exclusion is the extent to which its members are in regular positive contact with others.

1.2.2 Previous research on UK age attitudes

Although there are some highly relevant applications of social psychological theories to ageism, it remains the case that ageism is much less well researched than many other types of discrimination such as sexism and racism (Nelson, 2002). Past research in the UK, conducted for Age Concern, Age UK and the Department for Work and Pensions, has shown that a number of socio-demographic characteristics are related to different attitudes and stereotypes about age and experiences of age-related prejudice (Abrams *et al*., 2009; *How ageist is Britain?*, 2005; Ray *et al*., 2006).

There is strong evidence that attitudes toward different age groups depend on the age of the person who expresses the attitudes. Unsurprisingly, people feel rather more favourable towards their own age groups than do those who do not belong to those groups. Importantly, there are other demographic differences. Age attitudes are affected by people's gender and their ethnic background. Working status also influenced attitudes and experiences. There were also differences associated with social class. Furthermore, there were some regional differences, for example, between London and other regions in Britain which may be related to a number of underlying factors, one of them being the difference between urban and rural residential areas (Abrams *et al*., 2009).

Even aggregating across several surveys, sample sizes of between 1,000 and 2,000 do not provide sufficient scope for evaluating whether such demographic differences are robust and whether they are generalisable across different situations. The ESS provides an important opportunity to establish some of these conclusions with greater certainty because the sample size is sufficient to yield very reliable estimates of the views of relevant subgroups within the sample.

Thus, at the individual-level of analysis, this research systematically examines who is more likely to hold more negative age stereotypes or to experience more frequent incidents of age discrimination. That is to say, we can establish the personal and socio-demographic characteristics that make people more or less likely to experience and express ageism.

1.2.3 Societal-level theories

Prior research on ageism and age attitudes has been dominated by evidence and analysis at the individual-level. Societal-level theories have remained largely untested. Nevertheless, theories from sociology and gerontology clearly suggest the importance of the societal contexts in shaping attitudes to old age (Bengtson *et al*., 2009). Societal context refers to the particular structural and cultural features that define a particular society. It has been repeatedly argued that a single perspective is unlikely to explain the phenomenon of age prejudice; what is needed is a cross-national perspective in order to marry the different theoretical viewpoints and levels of analyses on ageing (Bengtson *et al*., 2009). Given that the European region is very diverse in regard to its cultural, socio-economic, and political context it seems especially important to explore the impact of these differences on age attitudes.

Modernisation

Modernisation theory (Cowgill, 1974) suggests that a shift towards industrialised modes of production (or more broadly, production that does not require individual expertise and skill) undermines the societal status of older people. Modernisation devalues older people's experience-based knowledge, disintegrates traditional family structures through urbanisation, and shifts control over the means of production from older people to industrial entities. As a general trend, which may also pervade the development of hi-tech-based organisations and work, this would lead us to expect to find less favourable attitudes to old age in more modern societies. For example, previously our research established that older people are stereotyped as being less capable of dealing with new technology than younger people (Ray, Sharp and Abrams, 2006). Various objective indicators can serve as proxies for modernisation. These include, for example, the wealth of a country (measured through the Gross Domestic product (GDP) and its degree of urbanisation, assessed as the percentage of population living in urban areas.

Culture

Modernisation theory has been criticised as an oversimplification that ignores cross-cultural differences in values and beliefs. These cross-cultural differences may have an important influence on people's attitudes to old age (Quadagno, 1982). Socialisation models assume that cultural norms determine how younger and older people are viewed (Schneider, 2004). Culture defines the status and respect accorded to older versus younger people, the roles that are deemed appropriate for them, and thus the stereotypical expectations applied to them. Because different cultures within the European region may emphasise different values (especially in regard to the status or respect due to older people), cultural differences might help to explain how different countries respond to an ageing population.

For instance, cross-cultural theory on values and belief systems in different societies (Schwartz, 2006) poses that there are cultures that value either embeddedness or autonomy. Embeddedness emphasises traditions and social ties to the social group which includes the honouring of elders (for example, in Turkey, Romania and Poland). On the other hand, autonomy emphasises independence from other people and has often been associated with Western youth-oriented cultures (for example, in France, Germany and the UK).

Conflict and competition over scarce resources

A number of theories in social psychology posit that competition over scarce resources leads to negative intergroup attitudes, prejudice or even intergoup hostility and conflict, for example The Social Structure Hypothesis (Fiske *et al*., 2002) or The Realistic Conflict theory (Sherif, 1966). Taking these theories a step further from the intergroup-level to the societal-level, it means that a societal context in which younger people compete for scarce resources with older people (for example, in the employment market) could well result in less favourable perceptions of older people. Hence, a particular societal structure may create tensions between the different age groups.

A number of indicators may reflect competition over scarce resources. For instance, GDP, and GDP per capita, is one of the main indicators used for economic analysis, as well as for analysis of disparities in economic welfare between countries[3]. GDP per capita reflects the total value of goods and services produced in a country in a given year. Generally, the higher is a country's GDP , the more developed that country is. Higher GDP is in general also associated with a better health-care system, higher public spending and better infrastructure, all of which are likely to be highly relevant to improving older people's living conditions. The consequences of relatively low economic welfare,

[3] See Eurostat at http://epp.eurostat.ec.europa.eu/statistics_explained, retrieved December 2010.

however, may be that it negatively affects spending on social welfare in mixed economies (where the price system is not entirely free but under some Government control). This in turn may create a form of realistic conflict between young and old.

GDP does not take disparity in incomes between the rich and poor into account. This is most often measured through the Gini index which is an inequality-based economic measure. Large disparities between rich and poor may in general lead to greater social tensions in society, which also include intergenerational relations. Uslaner (2002), for example, argued that economic inequality can disrupt the development of a generalised social trust, and thus hinder tolerance. There is also empirical evidence that tolerance tends to decline as national income inequality rises (Andersen and Fetner, 2008). There is much variation in the level of income inequality across countries, regardless of level of economic development. For instance, the United Kingdom is a highly developed country with relatively high levels of income inequality compared to other highly developed nations such as the Scandinavian countries. Furthermore, high unemployment rates mean that younger and older people are competing for the scarce resource of employment in a society. This might be expected to lead to negative intergenerational attitudes.

In a similar vein, in countries that set relatively later State Pension ages (for example, at 67 years of age), older people maintain their job positions for longer than in countries in which legal retirement occurs much earlier (for example, at 60 years of age). In the current economic climate, others may regard later retirement to be 'job blocking', which may foster negative attitudes towards older people.

Another societal feature is the high proportion of older people in a country (for example, measured through the age structure over 65) which may also create tensions between age groups. The age structure of a population has important socio-economic implications. Countries with older populations need to invest more in their health sector (CIA World Factbook, 2006). This may lead to less investment in the education sector which may cause resentment among the younger population and may ultimately be expressed in unfavourable attitudes towards older people.

1.3 Why this research is new?

There is a steadily growing body of research on attitudes to age, but no previous research has systematically assessed the impact of both the societal context and psychological factors on attitudes to age and experiences of ageism. Country-level theories have not been rigorously tested in past cross-cultural research on age attitudes. Typically, such research has involved comparisons between two (or sometimes a few more) specific Western and Eastern/Asian countries (for a review, see Giles *et al*., 2003), resulting in findings that are difficult to generalise or are inconclusive (see Löckenhoff *et al*., 2009). Previous multi-country research also has been largely restricted to qualitative evidence, which again raises problems of representativeness and generalisability (Arnhoff, Leon and Lorge, 1964; Giles *et al*., 2000; Giles *et al*., 2003; Harwood *et al*., 1996).

Some research has simply aggregated individuals' responses to an average for each country and then correlated these with societal context variables (for example, Palmore and Manton, 1974). This approach is especially problematic as it leads to the 'ecological fallacy' of using findings at the country-level to explain psychological phenomena at the individual-level (for a discussion see Hofstede, 1980). When larger cross-national studies have been conducted, they have focused on homogeneous and non-representative samples, such as students, with no evaluation of basic demographic differences. Such evidence leaves it unclear whether differences between countries should be attributed to the socio-demographic composition of the samples rather than to the societal context such as modernisation or cultural values (for example, Löckenhoff *et al*., 2009). Thus, the conclusions that have been drawn tend to be speculative and empirically not robust.

The ESS age module provides us, for the first time, with an opportunity to pursue extensive quantitative comparative analyses using high quality data to understand both individual and societal influences on negative attitudes to age and experiences of age discrimination. This represents a valuable and unique source of evidence with national, European and perhaps global relevance.

1.4 Research objectives and questions

The analyses for this report have two primary objectives:

1 to evaluate the impact of individual- and societal-factors on people's attitudes to age and experiences of ageism;

2 to discover the explanatory value of alternative theories of the impact of societal-level factors on people's attitudes to age.

1.4.1 What kind of individual and societal variables lead to more positive or less positive attitudes to old age?

Evidence from previous research in the UK provided the foundation for the measures designed for the ESS (Abrams *et al*., 2009; Ray *et al*., 2006) and have pointed to the individual-level variables that are likely to be most relevant from those variables measured in the ESS. The following socio-demographic variables will be tested as individual-level predictors of attitudes to age:

- age;
- gender (females compared to males);
- education (high scores indicating higher education);
- subjective poverty (high scores indicating higher subjective poverty);
- ethnic minority membership (people belonging to an ethnic minority compared to people not belonging to an ethnic minority);
- working status (people who have a paid working status compared to people who do not);
- residential area (people living in urban areas compared to people living in rural areas).

Full details of the measurement and operationalisation of these variables are available from the ESS[4] (ESS Round 4: European Social Survey, 2010). See Appendix A for more detailed information on how these variables were measured.

The societal-level variables for the analyses that follow have been carefully chosen to reflect different societal environments that theoretically should relate to more positive or less positive attitudes to age. The following indicators are proxy measures for the respective theories that have been reviewed above:

- Affluence: Gross Domestic Product Index.
- Inequality of income distribution in society: Gini index.
- Age legislation: State pension age (for men).
- Age structure: Proportion of population aged 65 and over.
- Unemployment: Unemployment rate (percentage of the labour force without jobs).

[4] See also http://www.europeansocialsurvey.org/

- Urbanisation: Proportion of the total population living in urban areas.
- Cultural values: The extent to which the country places a relatively high value on personal autonomy (such as individual independence) rather than embeddedness (such as family and elders).

GDP and the level of urbanisation of a country are taken as indicators of the degree of modernisation in a country testing modernisation theory. Cultural values test the theory that culture has an impact on people's attitudes to age. The indicators assessing inequality in income distribution, State Pension age, proportion of population aged 65 and over and unemployment rate are variables that allow testing the 'Conflict and Competition over Scarce Resources' hypothesis. Overall we assess whether and how each of these factors affects attitudes to age and experiences of ageism.

1.4.2 Which societal theory is right?

Research on ageing has often been criticised for being 'data-rich but theory-poor' (Bengtson *et al*., 2009). This research will counteract both points of criticism by testing, further developing and integrating theories from the social psychological and sociological literature using rich data based on representative samples from a large variety of countries.

Is it modernisation or competition for resources or culture that accounts for more positive or less positive attitudes to old age? Hitherto there has been no conclusive evidence to answer this question. For the first time we can disentangle the effects of different societal-level variables to discover which most strongly drive attitudes to age. Because we are also able to examine a range of different aspects of attitudes to age we can also see how pervasive or specific these effects are.

1.4.3 What are the attitudes of the very old?

The ESS dataset provides the unique opportunity to examine attitudes of the 'old-old' (80 years of age and over) and to compare them against the attitudes of the 'young-old' (65-79 years of age). However, multi-level analyses are restricted in the sense that the old-old age group is often not very numerous in the sampled ESS countries. For example, only 19 people over 80 participated in the survey in Cyprus. Conducting multiple regression analyses on such low sample sizes poses statistical problems. Nevertheless, the attitudes between these two age groups can be compared descriptively. The findings from these descriptive analyses are presented in Appendix F.

1.4.4 The policy context

Pensions and welfare policies in the UK are being changed in significant ways by the present Government. As well as planning to phase out the Default Retirement Age and raising the age at which the State Pension will be paid, other factors including changes to various benefits will affect older people significantly. In addition, job losses during difficult financial circumstances may well affect substantial numbers of older workers. At the other end of the scale, increasing financial pressures on younger people may make them less enthusiastic about the prospect of providing tax payments to cover the adequate State Pension arrangements for the growing numbers of older people. The current trends across the European region appear to be that, given financial pressures on government budgets, people may have to sacrifice more in terms of taxation or pay, and or they may be required to take more individual responsibility for their own health and personal care.

In this context it is important to note that the current evidence dates from 2008, prior to full public awareness of the implications of the banking crisis and prior to the present UK coalition Government. In 2008 the mood and prospects nationally and possibly throughout Europe were quite positive. Nonetheless, the evidence from this report will point to factors that vary at a societal level and can influence attitudes to ageing. Future research will certainly be needed to establish how things are changing, but the present work can show which societal factors are likely to be influential in shaping individual attitudes and experiences. In so far as Governments can try or hope to influence these factors they can make a difference for society as a whole and not just for particular individuals.

2 Methodological framework

This research adopts a multi-level analysis to examine attitudes to age measured in the 2008/09 European Social Survey (ESS). The chapter describes the dataset and the measures that are to be used for analysis. It also explains the selection of country-level variables that are used for explaining differences between countries (see Appendix B for more technical details). The chapter also explains the rationale for using a multi-level approach. Multi-level modelling is, strictly speaking, a correlational statistical method. Nevertheless, it is theoretically meaningful to conceptualise the national context as having an influence on its citizens and therefore, to infer causal relationships.

2.1 The datasets

2.1.1 Individual-level dataset: The ESS

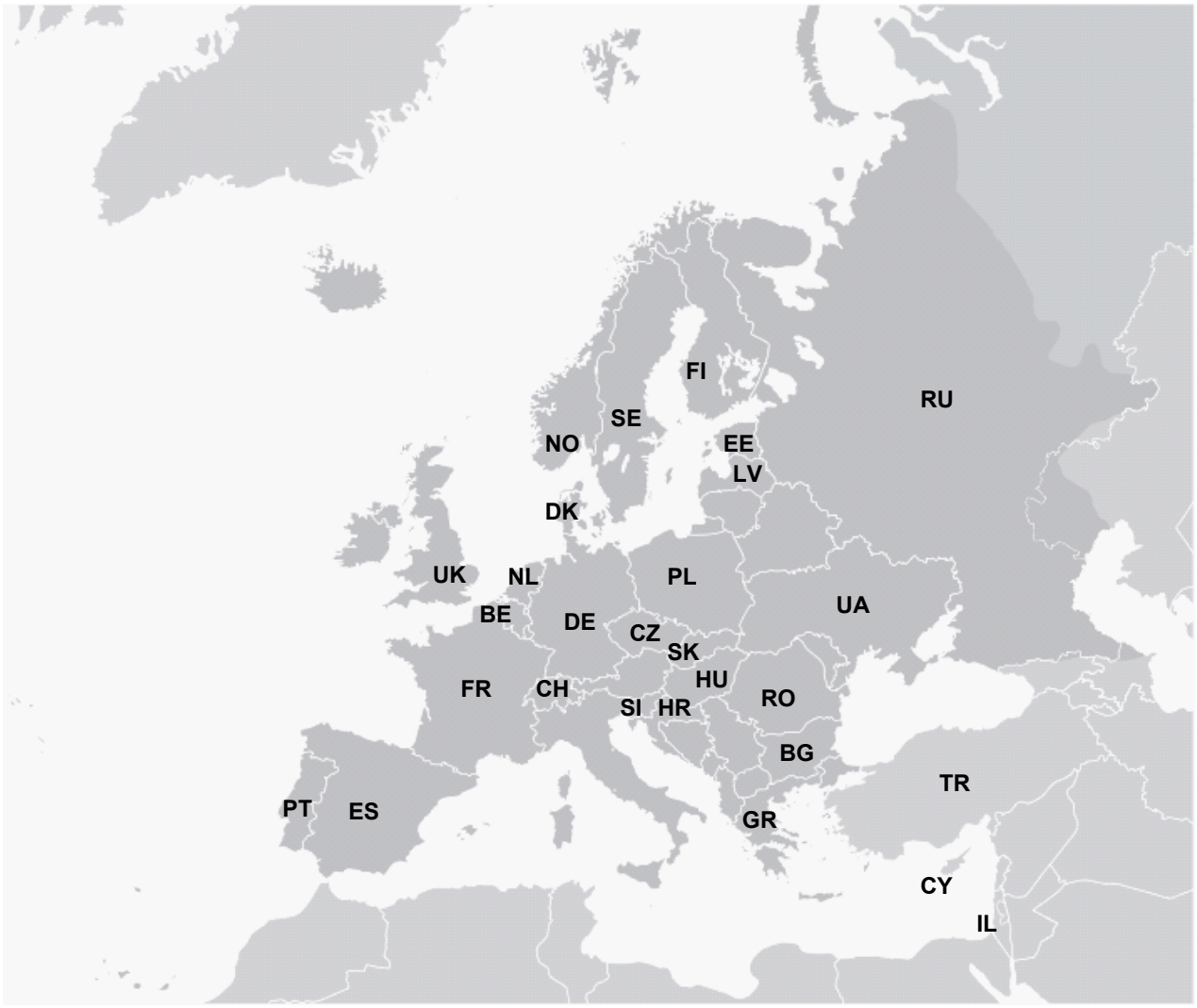
This research uses data from the ESS (ESS Round 4: European Social Survey Round 4 Data, 2008). The ESS is an academically-driven social survey designed to chart and explain the interaction between Europe's changing institutions and the attitudes, beliefs and behaviour patterns of its diverse populations. The survey employs the most rigorous methodologies and is funded through the European Commission's Framework Programmes, the European Science Foundation and national funding bodies in each country. Within any particular round of the survey, different countries can elect to participate or not. Round 4 had the highest number of participating countries, 28 of which provided relevant complete data for the analyses in this report.

The survey consists of a fixed module and two or three rotating modules. Round 4 with data collection in 2008 and 2009 included a rotating module on *Age Attitudes and Experiences of Ageism*. The module was designed by an international team of social psychologists: Prof Dominic Abrams from the University of Kent, Prof Luisa Lima from the Instituto Superior de Ciências do Trabalho e da Empresa in Lisbon, and Prof Genevieve Coudin from Université Paris 5. It contains 55 items which were developed and pilot tested extensively within a framework that has been subjected to detailed scrutiny, peer review and evaluation by experts in the ESS Central Coordinating Team.

Here we focus on a subset of 13 items that assess attitudes to people over 70 and experiences of age discrimination. The items have been thoroughly tested in regard to their reliability and validity in the UK context (Vauclair *et al*., 2010).

The ESS Round 4 dataset contains representative samples from 28 countries belonging geographically to the European region (with the addition of Israel). These are shown in Figure 2.1.

Figure 2.1 Map of countries sampled in the ESS



Source: Wikimedia at http://en.wikipedia.org/wiki/File:Location_European_nation_states.svg, retrieved December 2010.

Note. Key: Belgium (BE), Bulgaria (BG), Switzerland (CH), Cyprus (CY), Czech Republic (CZ), Germany (DE), Denmark (DK), Estonia (EE), Spain (ES), Finland (FI), France (FR), United Kingdom (UK), Greece (GR), Croatia (HR), Hungary (HU), Israel (IL), Latvia (LV), Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Russian Federation (RU), Sweden (SE), Slovenia (SI), Slovakia (SK), Turkey (TR), Ukraine (UA).

2.1.2 Country-level datasets

In order to explain the difference in attitudes to age between countries, it is necessary to identify relevant country-level variables that describe the environment in which individuals reside. These are drawn from so-called macro-level statistics which have been collected independently of the ESS. Macro-level statistics cover a wide range of data on a variety of characteristics, such as demography and economy. By linking micro-level data (such as individuals' responses) from the ESS with macro-level statistics (such as information about the country in which they reside) in the same analysis, it is possible to examine how these macro factors influence the attitudes and experiences of individuals.

A number of challenges face users of macro-level data. First, one has to establish the potential relevance of the data (for example, there are language differences across European countries but these seem unlikely to explain social attitudes). What is most important is that different countries can be evaluated using the same metrics so that the data are completely comparable. A further challenge is to ensure adequate coverage. For example, data on income or proportion of women in employment are not available for some countries. Depending on the set of countries to be compared this may limit the feasibility of multi-level analysis.

A further consideration when combining macro statistics with ESS data is the extent to which particular indicators are distinct or unique from one another. For example, to use male unemployment, female unemployment, and youth unemployment as macro level predictors would introduce considerable redundancy. Because many of the available indicators reflect shared underlying factors (for example, economic strength), we strove to select the relevant macro-level indicators carefully to ensure that each provides unique information. The balance to be struck is, therefore, between employing macro-level statistics that are comprehensive in terms of tapping important and relevant differences, while at the same time ensuring that each indicator is distinctive and informative.

Macro-level statistics were obtained from databases that provide adequate access to the datasets, comprehensive coverage of macro statistics, a reasonable coverage of ESS countries, and sufficient data documentation to ensure confidence in the accuracy of the indicators. We relied primarily on statistics derived from Eurostat, UNdata, and the CIA World Factbook. Where possible these were cross-checked against second sources. The indicators selected for analysis were Gross Domestic Product, Gini, State Pension age, total unemployment rate, proportion of population aged 65+, degree of urbanisation, and cultural values of autonomy. We say more about these indicators in the next chapter.

Appendix C shows the correlations among the macro-level variables selected for the analyses in this report. The bivariate correlations do not exceed a value of .80 which can cause the statistical problem of multicollinearity (such as highly correlated variables which cause statistical problems in a regression).

2.2 The multi-level modelling approach

The statistical approach used in this study is called multi-level modelling. It allows simultaneous modelling of individual-level and country-level effects. To model these effects we used the HLM 6.08 software programme (Bryk and Raudenbush, 2004).

Multi-level modelling is necessary when analysing clustered or grouped data (Raudenbush and Bryk, 2002). Clustered or grouped data means in the present case that individuals are nested within a particular country. This has important statistical implications. For instance, the attitudes towards age of two people from the same country will tend to be more similar than the attitudes of two people from different countries. If ordinary multiple regression analysis was used, this kind of clustering and dependency would be ignored. This would lead to standard errors and confidence intervals that are inaccurate. It also means that the analyst may attribute a finding to differences among individuals when in fact it is driven by differences between countries. For example, taking all ESS countries as a whole, suppose that older people feel more positive to people aged over 70 than do younger people. We might attribute this to a simple age bias. However, this overall pattern could be caused by two different effects. It could be that people from countries with a higher proportion of older people feel more positive than people from countries with a lower proportion. It could also be that, within countries, age is unrelated to how positive people feel towards older people. So, the overall relationship between a person's age and their feelings toward people over 70 could be affected by

their own age, their country, or both. To ensure that one does not conclude that there is an effect at the individual-level when, in fact, there is no such effect, multi-level analysis is necessary. Multi-level analysis is in general more 'conservative' than the more traditional approach of ordinary multiple regression analysis and therefore produces more robust results.

Multi-level modelling of the ESS data allows us to establish the effect of individual- and country-level variables simultaneously in a single regression model. This has important implications for the conclusions that can be drawn from the findings. If analysts only focus on country-level effects, they may attribute to differences among countries effects that are actually operating at the level of individuals. It may be that, beyond individuals' demographic characteristics, the societal context has no additional effect. Multi-level modelling enables us to control for the effects of the individuals' characteristics. If country-level characteristics still have an effect, it means that one can assume they are above and beyond aggregates of individuals' characteristics.

An important issue to consider in multi-level modelling is the sample size at the country level. Multi-level analysis is usually recommended with a sample size of at least 30 and ideally 50 at the country-level to achieve unbiased estimates and enough power to detect significant effects (Maas and Hox, 2005). Moreover, the more country-level predictors that are included in the model, the more degrees of freedom are lost. This is the case because degrees of freedom are a function of both the number of observations and the number of variables in a model. With a small sample size the uncertainty in the magnitude of the error will translate into substantially wider confidence intervals. Therefore, models need to be kept simple if there are small sample sizes. Although the country-level sample size in the present research is relatively close to the minimum threshold of what is recommended (N = 28), there are a number of cross-cultural multi-level studies in the literature that were conducted on sample sizes as low as 20 (for a review, see Cheung and Au, 2005).

To maximise our explanatory power we limited the analysis to macro-level statistics that covered almost all ESS countries. We then further restricted the selection of indicators to those that were most central theoretically and were most distinct from one another empirically. Furthermore, to accommodate the low statistical power at the country-level, the criterion for statistical significance was set to $p < .10$. An implication of this necessary selectivity is that there could be other national indicators that are relevant to the explanation of attitudes to age, but which we have not included. Consequently, when there is an absence of significant effects of country-level predictors this does not rule out the possibility that the national context can explain variance between countries. It may be that other macro-level indicators or differences between countries for which there are only partial or no data, may still explain differences in responses to the survey.

There is a lack of comparable previous research so our investigation and selection of suitable macro-level indicators is not definitive. It was beyond the frame of the current study to explore these avenues in further detail. We do, however, make the following observations. In research fields such as education it is generally possible to increase the sample size for clusters (for example, by sampling more schools or school classes). In the case of national data there are more constraints, including that there are only around 200 countries across the globe and the costs of obtaining comparable survey data across a larger number of them. Nonetheless, it is still valuable and, indeed we would suggest, essential to understand the country-level effects that can be detected.

Addressing this cluster size constraint in future research could follow two avenues. One approach would be to develop larger numbers of country-level indicators and to attract a larger number of countries to participate in the ESS. An alternative approach is to identify indicators that have been measured with sufficient rigour at a sub-country-level (for example, region, city, etc.) that could be mapped to ESS regions. We expect that both approaches will be pursued in future research.

3 Descriptive results

This chapter provides a summary of the survey sample. It then describes differences between countries in responses to the key measures in the survey and differences between countries on the macro level indicators. This sets the context for the multi-level analysis which follows in Chapter 4.

Table 3.1 provides information about the countries that were sampled in the fourth round of the European Social Survey (ESS). It shows the period of data collection, the sample size and the response rate for each country. Data collection was conducted during 2008 and 2009.

The ESS sampling objective is to achieve equivalent sampling in all participating countries. The requirement is for random (probability) samples with comparable estimates based on full coverage of the eligible residential populations aged 15+. The dataset used for this report was released in March 2010 containing representative data from 28 countries across the European region[5] and 54,988 respondents in total. The average sample size was 1,966, ranging from 1,215 (in Cyprus) to 2,751 (in Germany). The average response rate was 63 per cent with a minimum of 45.7 per cent (in Croatia) and a maximum of 78.7 per cent (in Cyprus).

Table 3.2 lists the 13 measures from the *Age Attitudes and Experiences of Ageism* module of the ESS that were analysed in this research, together with their response scales. Appendix A provides more detailed information about the specific wording of the items. As described in Chapter 1, 13 items were selected and organised in terms of their correspondence to a series of different constructs. These were: age categorisation and identification; the perceived status of people aged over 70; the perceived threat to society from people aged over 70; perceived stereotypes of people aged over 70; direct prejudice towards people over 70; experiences of prejudice against oneself based on age; and closeness of social relationships (contact) with others aged over 70.

The module was designed by an international team of social psychologists, led by the principal investigator of this project. The measures were developed and pilot tested within a framework that has been subjected to extensive peer review and evaluation by experts in the ESS Central Coordinating Team. Furthermore, the items have been thoroughly tested in regard to their reliability and validity in the United Kingdom (UK) context (Vauclair *et al*., 2010). Note that although some items measure judgements about others' views of people over 70, this methodology is still recognised as measuring the extent to which stereotypes exist as shared social images, which affect people's behaviour even if they do not espouse them overtly (see Fiske *et al*., 2000).

[5] Note that the 28 ESS countries are not all EU member states. When we refer to the ESS countries as belonging to the European region, we mean the geographical (and not the geopolitical) area that is separate from Asia and Africa. It is noteworthy that Israel is also included in the ESS data set.

Table 3.1 Period of data collection, sample size and response rate for ESS Round 4 countries

Country	Time of data collection	N	Response rate %
Belgium	Nov 08 – Mar 09	1,760	58.9
Bulgaria	Mar 09 – May 09	2,230	75.0
Croatia	Dec 08 – Mar 09	1,484	45.7
Cyprus	Sep 08 – Dec 08	1,215	78.7
Czech Republic	Jun 09 – Jul 09	2,018	69.5
Denmark	Sep 08 – Jan 09	1,610	53.9
Estonia	Nov 08 – Mar 09	1,661	57.4
Finland	Sep 08 – Feb 09	2,195	68.4
France	Sep 08 – Jan 09	2,073	49.4
Germany	Aug 08 – Jan 09	2,751	48.0
Greece	Jul 09 – Nov 09	2,072	74.3
Hungary	Feb 09 – Apr 09	1,544	61.3
Israel	Aug 08 – Mar 09	2,490	77.7
Latvia	Apr 09 – Sep 09	1,980	57.9
Netherlands	Sep 08 – Jun 09	1,778	49.8
Norway	Aug 08 – Jan 09	1,549	60.4
Poland	Nov 08 – Feb 09	1,619	71.2
Portugal	Oct 08 – Mar 09	2,367	75.7
Romania	Dec 08 – Jan 09	2,146	68.0
Russia	Nov 08 – Apr 09	2,512	67.9
Slovakia	Dec 08 – Feb 09	1,810	72.6
Slovenia	Oct 08 – Jan 09	1,286	59.1
Spain	Sep 08 – Jan 09	2,576	66.8
Sweden	Sep 08 – Feb 09	1,830	62.2
Switzerland	Aug 08 – Apr 09	1,819	49.9
Turkey	Nov 08 – May 09	2,461	66.5
Ukraine	Mar 09 – Apr 09	1,845	61.5
United Kingdom	Sep 08 – Jan 09	2,352	55.8

Table 3.2 Dependent variables and response scales from the *Age Attitudes and Experiences of Ageism* module of the ESS

ESS code	Item	Response scale
Age categorisation and identification		
E1	Age people stop being described as young	(Actual estimated age)
E2	Age people start being described as old	(Actual estimated age)
E4	Strong or weak sense of belonging to age group	0 = 'very weak sense of belonging' to 10 = 'very strong sense of belonging'
Perceived status of people over 70		
E7	How most people view the status of people over 70	0 = 'extremely low status' to 10 = 'extremely high status'
E24	How acceptable it would be for most people if a qualified 70 year old was appointed as their boss	0 = 'completely unacceptable' to 10 = 'completely acceptable'
Perceived threat from people over 70		
E12	People over 70 place a burden on health service these days	0 = 'no burden' to 10 = 'a great burden'
E14	People over 70's contribution to the economy these days	0 = 'contribute very little economically' to 10 = 'contribute a great deal economically'
Stereotypes about people over 70		
E19	Most people view those over 70 as friendly	0 = 'not at all likely be viewed that way' to 4 = 'very likely to be viewed that way'
E20	Most people view those over 70 as competent	0 = 'not at all likely be viewed that way' to 4 = 'very likely to be viewed that way'
Direct prejudice towards people over 70		
E34	Overall how negative or positive you feel towards people over 70	0 = 'extremely negative' to 10 = 'extremely positive'
Personal experience of ageism		
E39	How often in the past year you have been treated badly because of your age	0 = 'never' to 4 = 'very often'
E55	How serious is discrimination against people because of age	1 = 'very serious' to 4 = 'not at all serious'
Contact with people over 70		
E42	How many friends you have, other than family, aged over 70	1 = 'none', 2 = '1', 3 = '2-5', 4 = '6-9', 5 = '10 or more'

3.1 Differences among countries

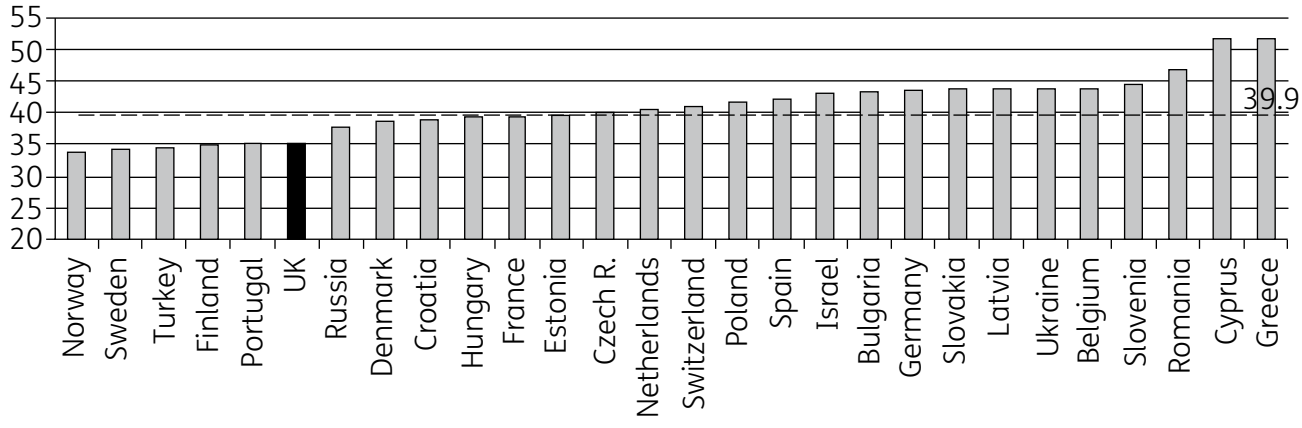
In this section we show average responses to each measure within the 28 ESS countries. In each graph the countries are organised to show the ascending rank ordering of countries. The grand mean (such as the average across all ESS countries) is represented as a broken line in the graph. The mean for the United Kingdom is highlighted in black. Note that, as recommended by the ESS, these analyses were conducted by using the product of the design weight and population weight to adjust for a possible sampling bias.

We also report the Intraclass Correlation Coefficient (ICC) for each measure. The ICC describes the proportion of variance in each measure that is accounted for by differences between the countries. The ICC can range from 0 to 1. For example, if for a particular measure the ICC is .18, this indicates that 18 per cent of the variance in that measure is due to differences between countries, and the remaining 82 per cent is due to differences at the individual-level (Raudenbush and Bryk, 2002). The higher the ICC, the more important it is to use country-level predictors to try to account for the variation between countries. Generally, if the ICC is larger than .05, a multi-level analysis would be appropriate. Note that even with smaller ICCs, a multi-level analysis can still be informative.

3.1.1 Age categorisation and identification

Age categorisation is the process of classifying people as belonging to a certain age group, and the boundaries that people set for age categories inform us about the boundaries they might use for applying age-category stereotypes (for example, about being 'old'). On average, people across the 28 ESS countries thought that people generally stop being described as young at approximately 40 years of age. The ICC of .14 reflects the substantial differences between countries (14 per cent of the variation). Figure 3.1 shows, for example, that people in Norway perceived the end of youth to be around 34 years of age, whereas people in Greece perceived it to be around 52 years of age. People in the UK estimated well below the grand mean (35.2 years of age) which means that the end of youth is perceived relatively early.

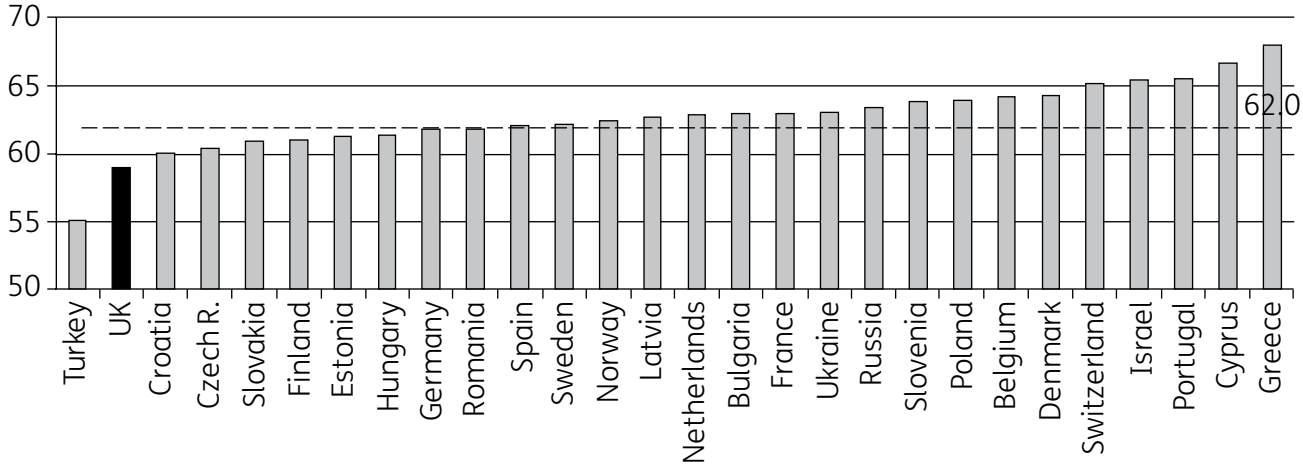
Figure 3.1 Perception of the end of youth (estimated average age) by ESS country



Note: The grand mean (the average across all ESS countries) is represented as a broken line.

Figure 3.2 shows the average responses per ESS country for the question of when people generally start being described as old. Across all countries, the grand mean for the perceived start of old age is 62 years of age. The ICC is .06 indicating less inter-country disagreement than was the case for the end of youth. However, there are still some quite large differences. In Turkey, the start of old age is perceived to be 55 years on average, whereas in Greece it is perceived to be 68 years. The UK is again below the grand mean and is among the countries that show the lowest ranking for this variable as old age is perceived to start relatively early (at 59 years of age).

Figure 3.2 Perception of the start of old age (estimated average age) by ESS country

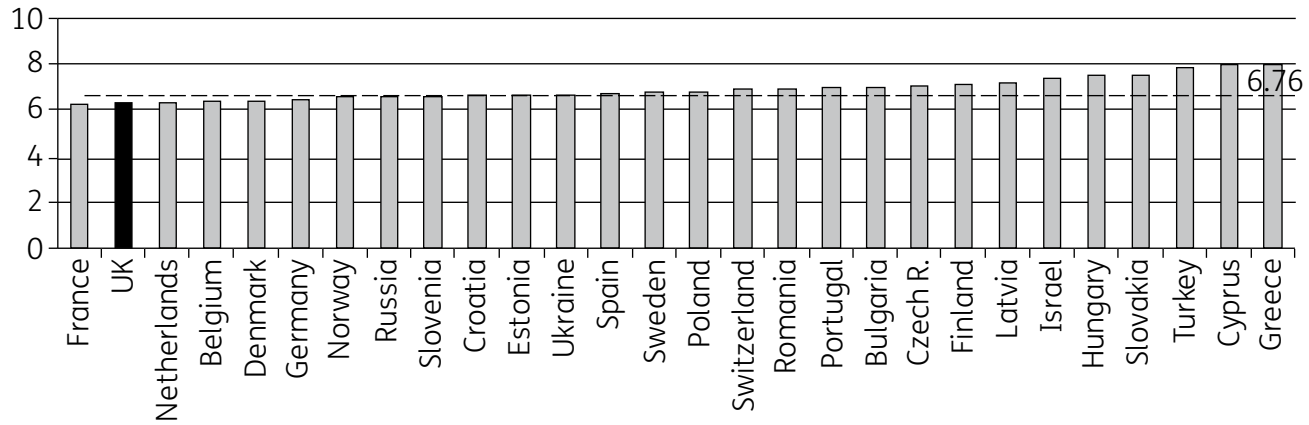


Note: The grand mean (the average across all ESS countries) is represented as a broken line.

Age identification is the extent to which people positively identify with an age category. How strongly people identify with their own age group provides some insight both into their views of the societal standing of that group and whether they think they are included in acts and messages directed toward that group.

Figure 3.3 shows how much people in general identify with their age group across the different ESS countries. The higher the score, the more strongly is their sense of belonging to their age group. The grand mean of 6.76 illustrates that there is a relatively positive but not extremely strong sense of age identification across all ESS countries. Even in France, which ranks lowest, the average score is still above the mid-point of the scale. The relatively low ICC of .04 indicates that most of the important variability in this measure occurs within rather than between countries. The UK ranks second lowest on age identification, nearly two scale points lower than Greece, which shows the highest average age identification.

Figure 3.3 People's sense of belongingness to their age group by ESS country

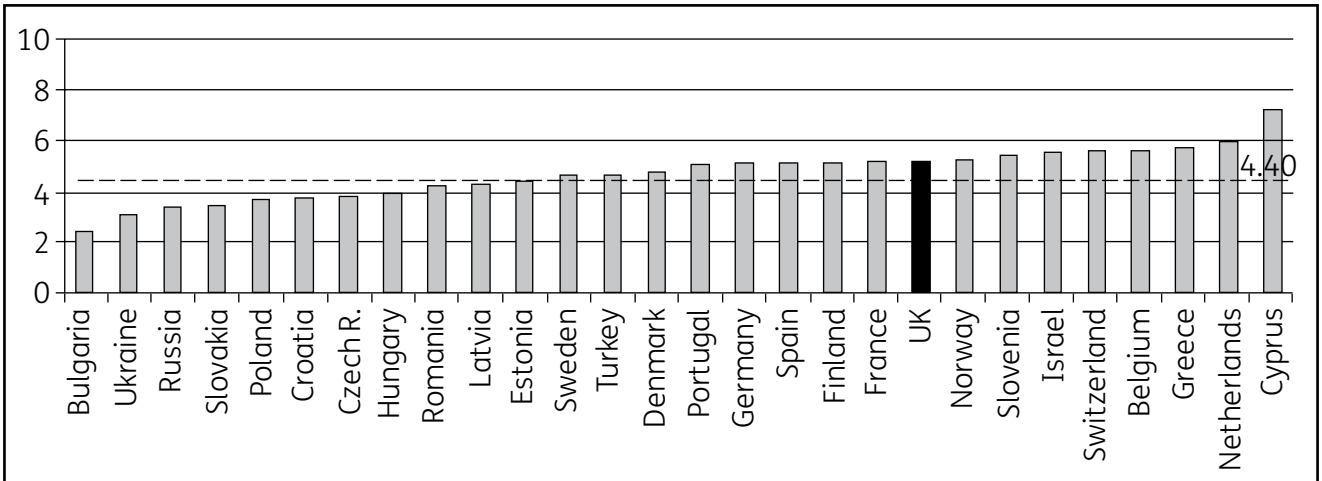


Note: The grand mean (the average across all ESS countries) is represented as a broken line.

3.1.2 Perceived status of people over 70

People have different roles, status, power and social responsibilities in society, and greater power and status are likely to confer greater influence over others. Therefore, it is important to understand how people perceive the status of older people. The following two figures show the perceived status of people over 70 (such as whether older people are seen as having high or low status) in the respective ESS countries. Figure 3.4 illustrates that, on average across all ESS countries, the status of older people is perceived to be rather low (grand mean = 4.40). However, there is quite substantial variation between countries, as revealed by the ICC of .17. The UK falls in the middle of the range, though still near the scale midpoint, while the status of people over 70 was regarded least highly in Bulgaria and most highly in Cyprus.

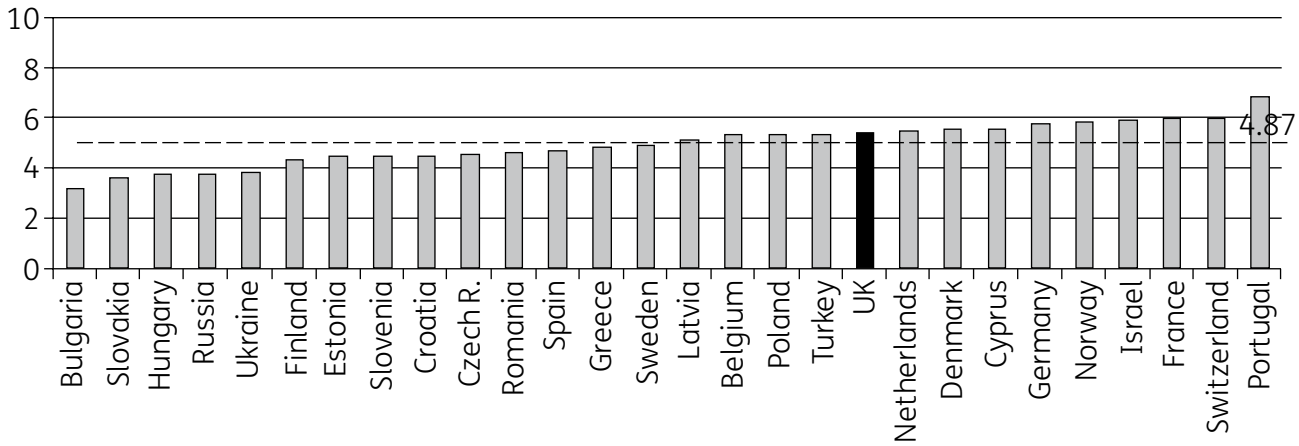
Figure 3.4 Perceived status of people aged over 70 in society by ESS country



Note: The grand mean (the average across all ESS countries) is represented as a broken line.

Figure 3.5 shows the extent to which people aged over 70 are perceived as acceptable in higher status positions in the workplace, such as acceptability of having a boss aged over 70. The grand mean (of 4.87) is somewhat higher than for the general judgements of status described above. However, it is clear that a boss aged over 70 is not regarded with much enthusiasm in most countries, including the UK. The ICC of .10 indicates that there is quite substantial variation between countries. However, only in Portugal did it seem to be clearly acceptable to have a 70 year old as a boss. Bulgaria is the country in which it was seen as least acceptable.

Figure 3.5 Perceived acceptance of people aged over 70 as a boss by ESS country



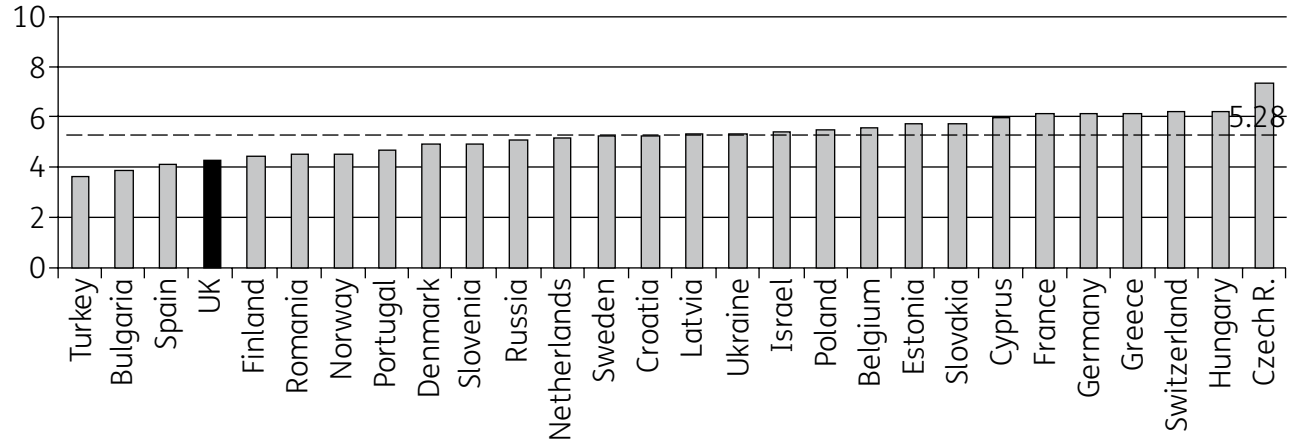
Note: The grand mean (the average across all ESS countries) is represented as a broken line.

3.1.3 Perceived threat from people over 70

To varying degrees, groups in society may be perceived as posing a challenge, or threat, to society as a whole or to important objectives of people's ingroups. Groups that are perceived as posing a threat are likely to face negative stereotypes and prejudice. This section deals with the question of to what extent people over 70 are perceived as a threat either in terms of their burden on health care or through their contribution to the economy.

Figure 3.6 shows the perceived threat of older people because of the burden they place on health services. While the grand mean across the ESS countries suggests neutrality (5.28 corresponds almost to the midpoint of the scale), there is variation between countries, with an ICC of .09. A number of countries are well below and some are well above the grand mean. For example, older people were viewed as a substantial burden by people in the Czech Republic but this perception was not shared in countries including Turkey and Bulgaria, nor indeed the UK.

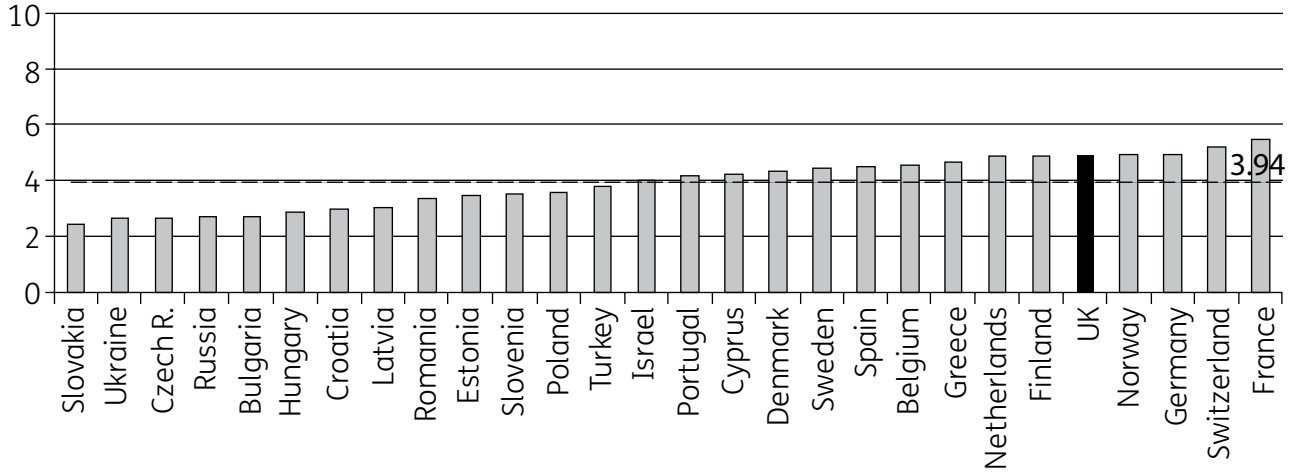
Figure 3.6 Perceived burden of people aged over 70 on health services by ESS country



Note: The grand mean (the average across all ESS countries) is represented as a broken line.

Turning to perceived economic threat (see Figure 3.7) the grand mean of 3.94 shows that older people's contribution to the country's economy is perceived to be relatively low (indicating higher economic threat) across all ESS countries. However, there is quite substantial variation in the extent of this threat in different countries, with an ICC of .15. For example, France is the only country whose average is above the mid-point of the scale, meaning that people aged over 70 were seen as contributing slightly positively economically. The economic contribution was perceived to be lowest in Slovakia. The UK average is slightly above the grand mean but just below the mid-point of the scale.

Figure 3.7 Perceived economic contribution of people aged over 70 by ESS country



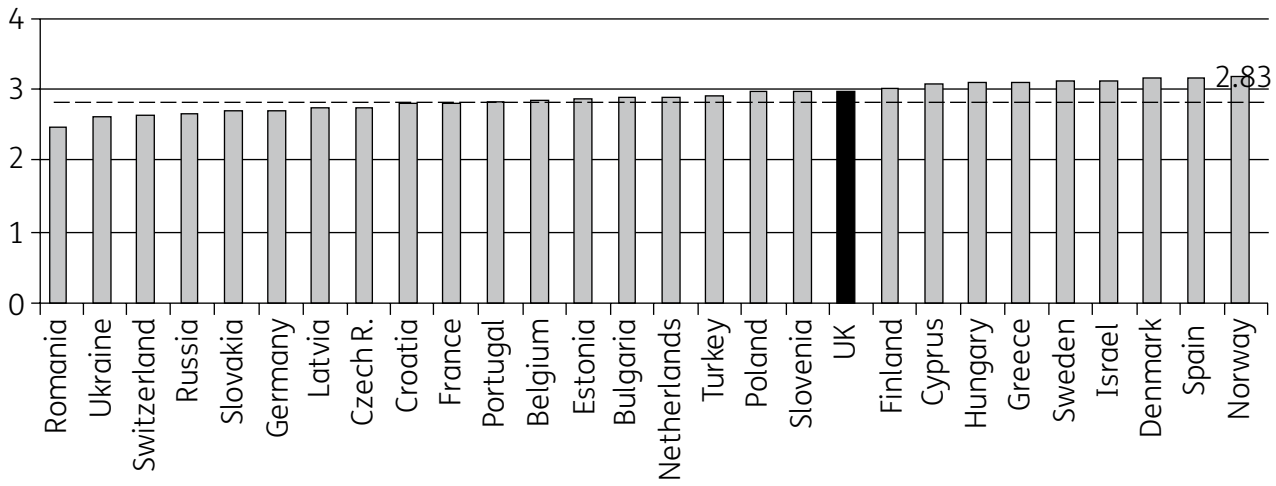
Note: The grand mean (the average across all ESS countries) is represented as a broken line.

3.1.4 Stereotypes about people over 70

Stereotypes are socially shared beliefs about the characteristics of the members of a social group that provide a subjective basis for people to treat members of different groups differently. Our approach to measuring stereotypes focuses on the key dimensions of warmth and competence that underlie stereotypes of most groups and are associated with different types of emotional responses to those groups. This section deals with the extent to which respondents believe people aged over 70 are stereotyped as 'friendly' and 'competent'. A profile that indicates higher friendliness and low competence is characteristic of groups that suffer from benevolent or patronising prejudice.

Figure 3.8 shows that on average across all ESS countries, people over 70 are stereotyped as relatively friendly (grand mean = 2.83 on a scale for 0 to 4). The ICC with a value of .04 shows that the friendliness age stereotype does not vary very much between countries – most regarded this age group to be friendly. The UK average is above the grand mean showing that people in the UK stereotyped older people as friendly rather than unfriendly.

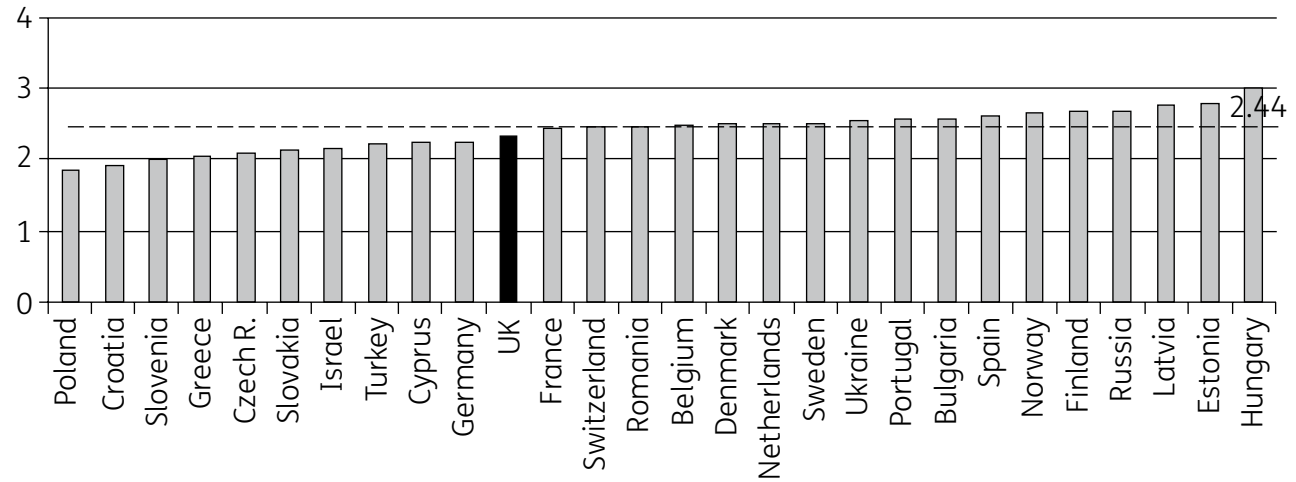
Figure 3.8 Perceived societal stereotype of people aged over 70 as being friendly by ESS country



Note: The grand mean (the average across all ESS countries) is represented as a broken line.

Figure 3.9 shows people's perceptions of the way people over 70 are stereotyped in terms of competence. The grand mean (2.44) here is lower than for the friendliness stereotype, showing that competence is perceived to be less characteristic than friendliness. The ICC of .07 also indicates important differences between countries. In countries such as Poland and Croatia, people aged over 70 were clearly seen as less competent than in others, such as Estonia and Hungary. The UK falls below the ESS average, and notably the friendliness-competence gap is quite large in the UK.

Figure 3.9 Perceived societal stereotype of people over 70 as being competent by ESS country



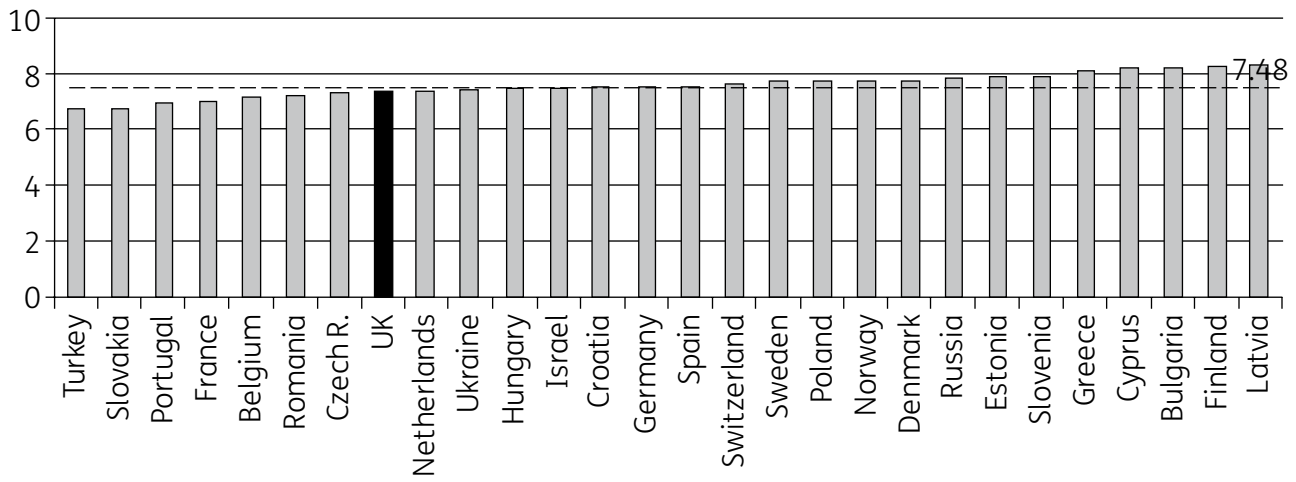
Note: The grand mean (the average across all ESS countries) is represented as a broken line.

3.1.5 Direct prejudice towards people over 70

Prejudice research shows that people are likely to feel inhibited from expressing direct prejudice against particular types of group (such as stereotypically dependent groups). Direct prejudice is measured in the ESS by asking respondents to indicate how negative or positive they feel overall towards people over 70. Note that higher scores represent more positive feelings.

Figure 3.10 shows that the grand mean is 7.48, in other words, that on average people express positive feelings towards people aged over 70. Moreover, the ICC is only just above threshold (.05), indicating relatively little variation between countries. Even those countries that score below the grand mean, such as Turkey and Slovakia, are still above the mid-point of the scale indicating rather positive feelings. The most positive countries are Bulgaria, Finland and Latvia. The UK scores just below the grand mean. This pattern of responses is consistent with the idea that the elderly stereotype invites a positive backdrop of warm feelings across countries, but these have to be viewed in the context of judgements about the status and competence of older people, which differ between countries.

Figure 3.10 Direct prejudice towards people over 70 by ESS country



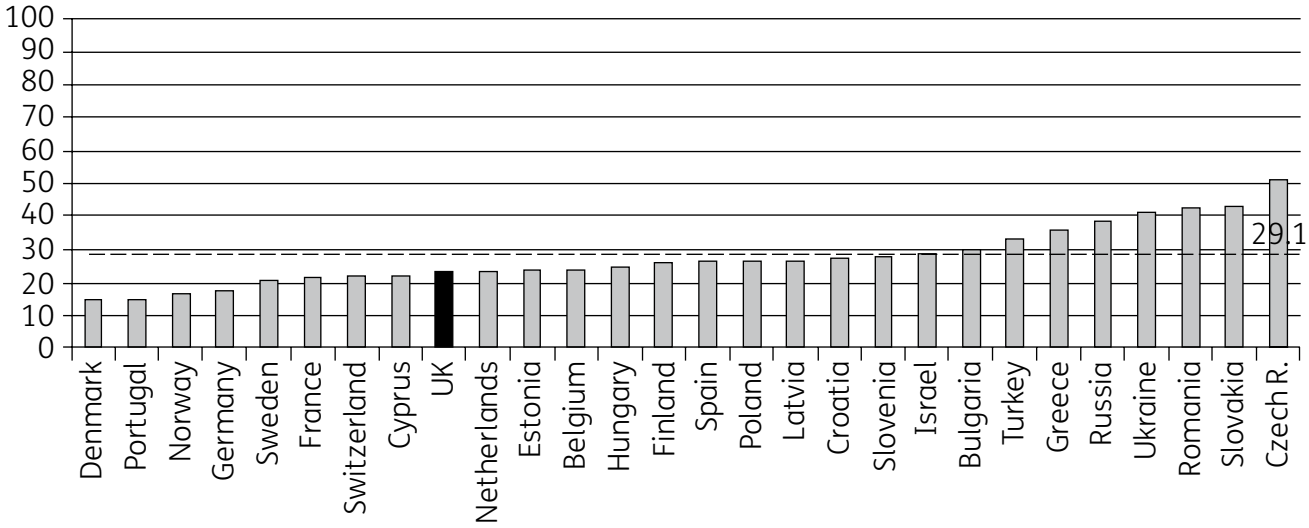
Note: The grand mean (the average across all ESS countries) is represented as a broken line.

3.1.6 Personal experience of ageism

Personal experience of ageism was measured on a scale from 0 = 'never experienced' to 4 = 'experienced very often'. In the multi-level analyses, this variable is treated as a continuous variable with the aim of explaining mean differences in age discrimination across countries. For the descriptive analyses, it is more interesting to look at the critical threshold for this measure which is 1, such as whether the respondent had ever experienced age-based prejudice in the past year. Hence, the aim here is to compute the percentage of respondents that 'never experienced' ageism versus those that experienced it 'at least once' and up to 'very often experienced' in the past year.

Figure 3.11 illustrates that age discrimination was personally experienced by about one third of all respondents. Moreover, while the ICC on this measure is low (.04), there are some notable differences between countries. The average response was very low in Denmark and Portugal whereas it was especially high in Eastern European countries, such as Romania, Slovakia, and the Czech Republic. However, intriguingly it seems that individual-level characteristics may be relatively more important in accounting for who is the target of age discrimination.

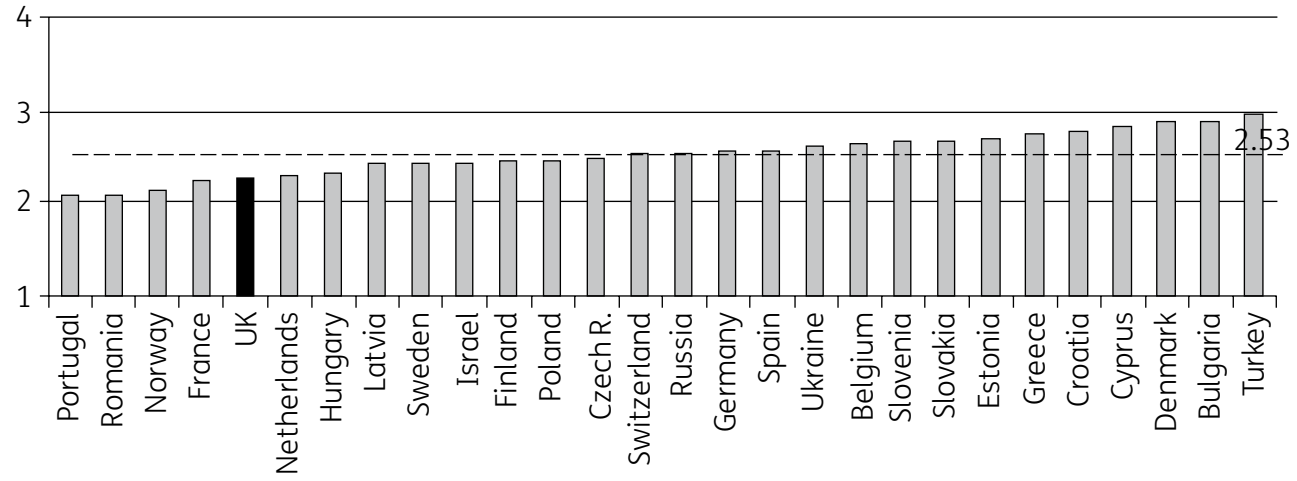
Figure 3.11 Proportion of people reporting personal experiences of age discrimination by ESS country



Note: The grand mean (the average across all ESS countries) is represented as a broken line.

Figure 3.12 shows the perceived seriousness of age discrimination in society. Higher numbers indicate less perceived seriousness. The grand mean is 2.53, which is just above the mid-point of the 1-4 scale, indicating that just under half of the respondents regarded age discrimination to be a serious or very serious issue across all ESS countries. However, there is an important variation between countries (ICC = .07). In almost half of the ESS countries, including the UK, ageism was regarded as serious, whereas in others, including Denmark, Bulgaria and Turkey, it was regarded as less serious. Of course there could be different reasons to explain these views in different countries given their different profiles on other measures. It is noteworthy that the rank ordering of countries for experiences (Figure 3.11) and perceived seriousness (Figure 3.12) is not identical; this indicates that contextual factors that affect whether ageism is regarded as a serious issue are likely to be different from contextual factors that affect the levels of ageism that people experience.

Figure 3.12 Perceived seriousness of age discrimination in society by ESS country



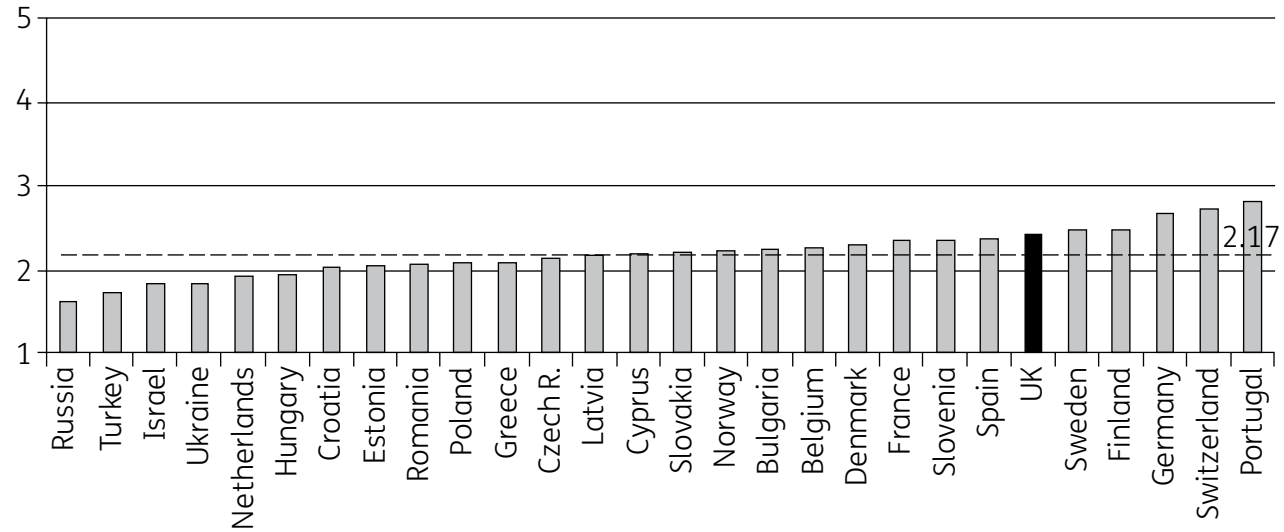
Note: The grand mean (the average across all ESS countries) is represented as a broken line.

3.1.7 Contact with people over 70

The last variable deals with the contact people have with people aged over 70, specifically contact as friends. Research on intergroup prejudice indicates that closer relationships, particularly friendships, across group boundaries can pave the way to improved intergroup relationships and reduction in stereotyping. Thus, the presence (or absence) of cross-group friendship is an important indicator of the potential for ignorance and negative stereotyping, as opposed to understanding, that may exist between groups. Respondents were asked to indicate whether they had no friends, 1 friend, 2-5 friends, 6-9 friends or 10 or more friends over 70 who are not family members. The categorical response scale is treated as a continuous variable scored from 1 to 5.

The grand mean of 2.17 reflects that people typically selected the first response option, 'one friend'. Despite an ICC of only .04, there are some potentially interesting differences between countries. People in Portugal reported the highest number of friendships with people aged over 70, whereas people in Russia reported the fewest. The UK average is above the grand mean which means that people in the UK reported on average at least one friend who is older than 70.

Figure 3.13 Number of friendships with people aged over 70 (other than family members) by ESS country



Note: The grand mean (the average across all ESS countries) is represented as a broken line.

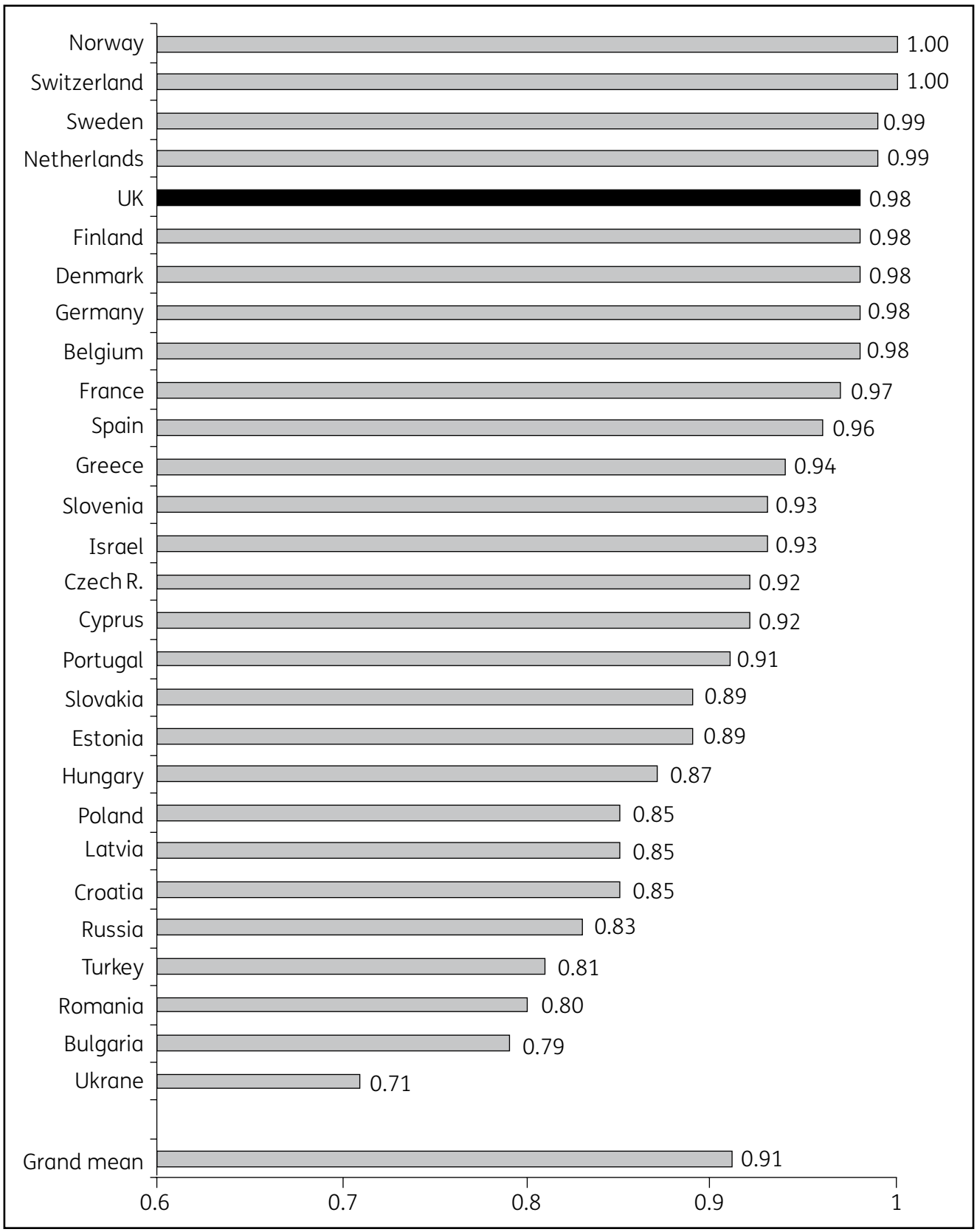
3.2 Country-level predictors

This section describes differences between countries in terms of the country-level indicators that we use in our later analyses to explain differences in responses to the 13 measures. The country-level indicators are: Gross Domestic Product Index (GDPI), State Pension age (SPA), unemployment rate, proportion of population aged 65 and over, urbanisation, cultural values (such as valuing family and elders vs. individual independence) and Gini index. See Appendix B for more detailed background information on these statistics.

3.2.1 GDP index

Figure 3.14 shows the rank ordering of the ESS countries on the GDPI with the UK being above the ESS grand mean of 0.91.

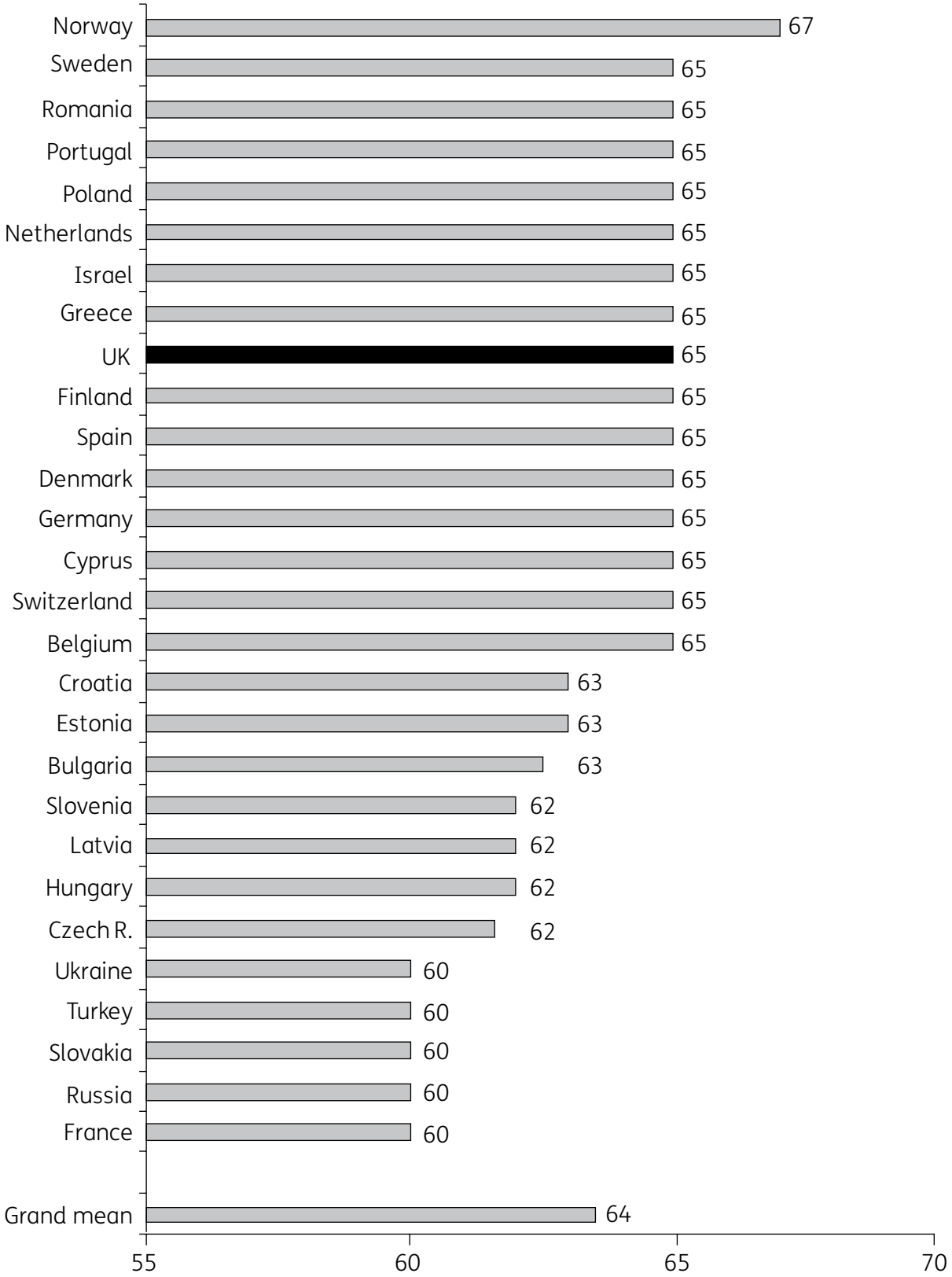
Figure 3.14 GDPI by ESS country



3.2.2 Age legislation

Figure 3.15 shows that the SPA for men ranges from 60 to 67 across the ESS countries. The UK is in the same block as the largest category of countries with a SPA, at the time of the survey, of 65.

Figure 3.15 Age legislation – SPA (for men) by ESS country

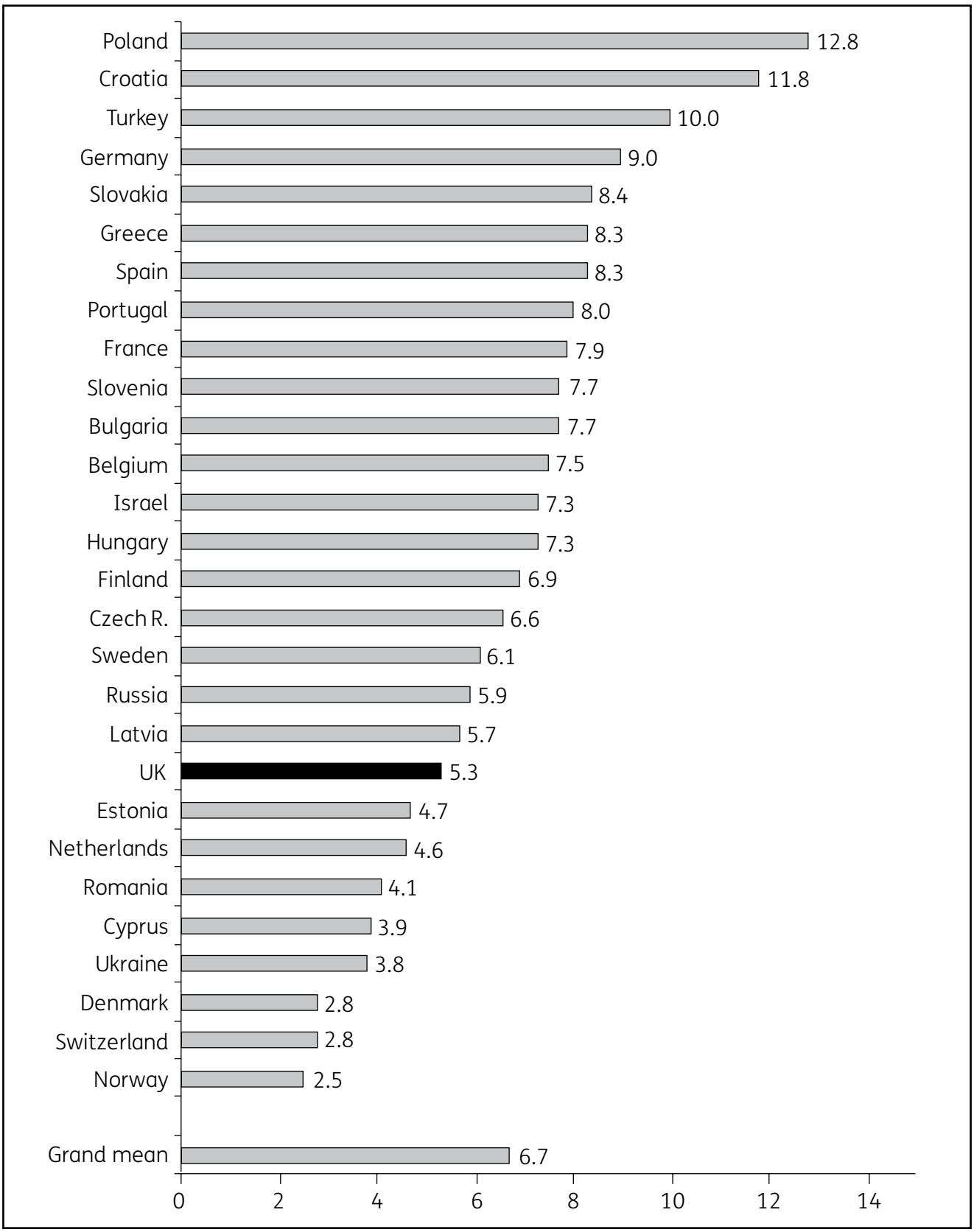


Note: The statistics displayed have been rounded (see Appendix B for more details).

3.2.3 Unemployment

Figure 3.16 shows that total unemployment rates were highest in Poland (12.8 per cent) and lowest in Norway (2.5 per cent). The UK is below the average across all ESS countries with an unemployment rate of 5.3 per cent.

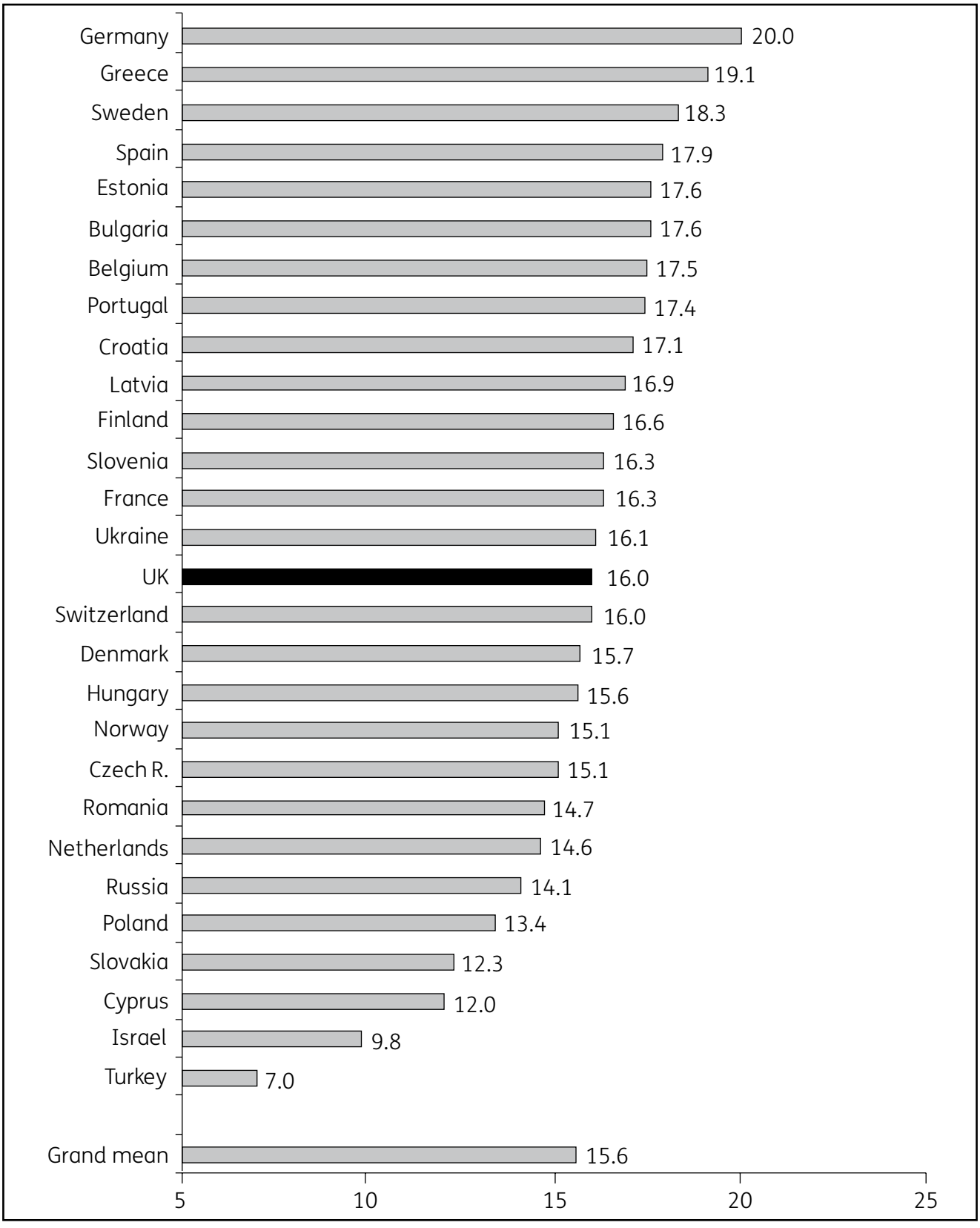
Figure 3.16 Unemployment – unemployment rate by ESS country



3.2.4 Age structure

Figure 3.17 shows the age ratio across the ESS countries. Germany has the highest proportion of older people aged 65 and over, whereas Turkey the lowest. The UK is just above the overall average with 16 per cent of older people in society.

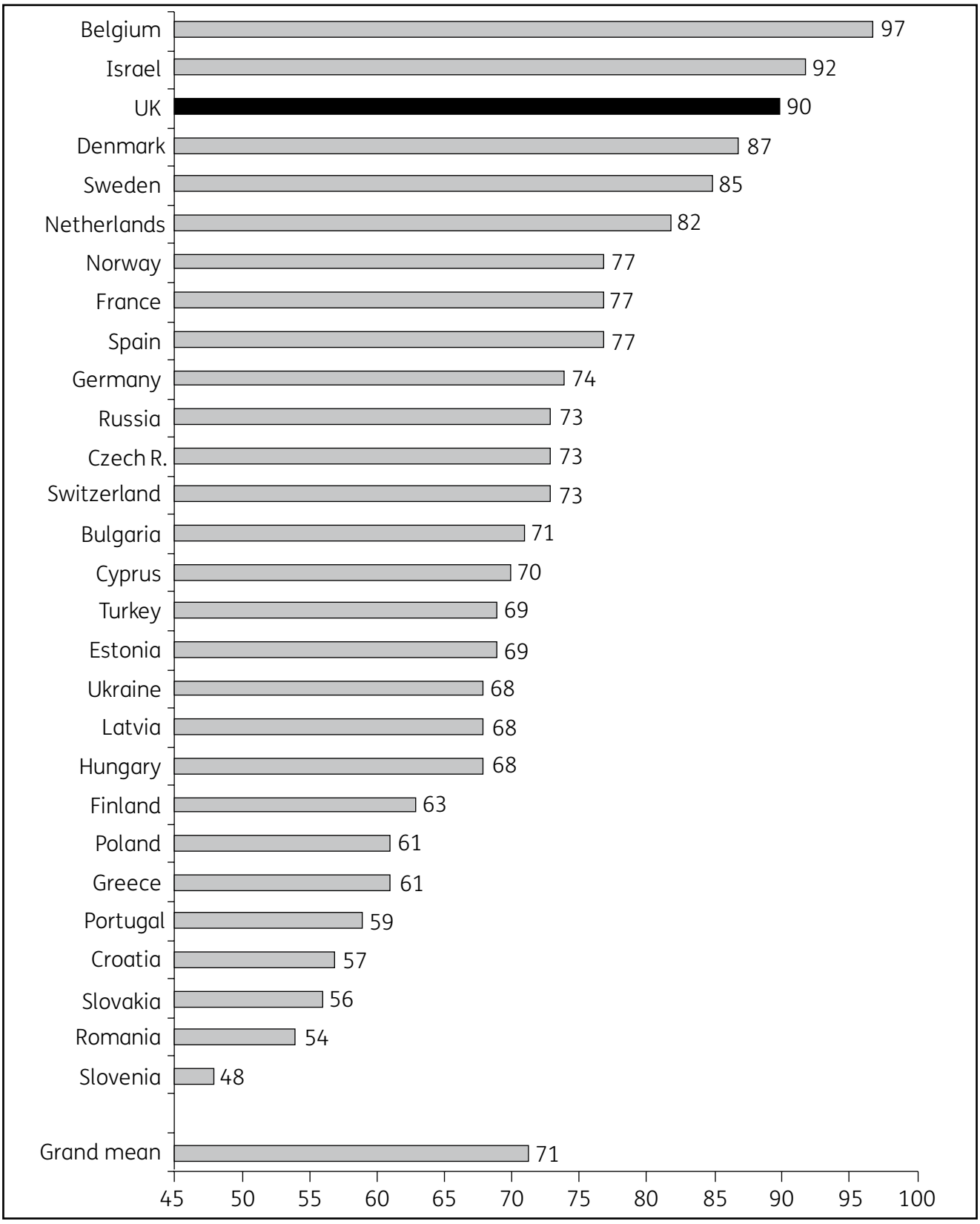
Figure 3.17 Age structure – proportion of population aged 65 and over by ESS country



3.2.5 Urbanisation

Figure 3.18 shows the proportion of the total population living in an urban environment by ESS country. There is considerable variation across countries: Belgium has the highest proportion of its total population living in urban areas (97 per cent) and Slovenia has the lowest (48 per cent). The UK ranks third with 90 per cent of its total population living in urban areas.

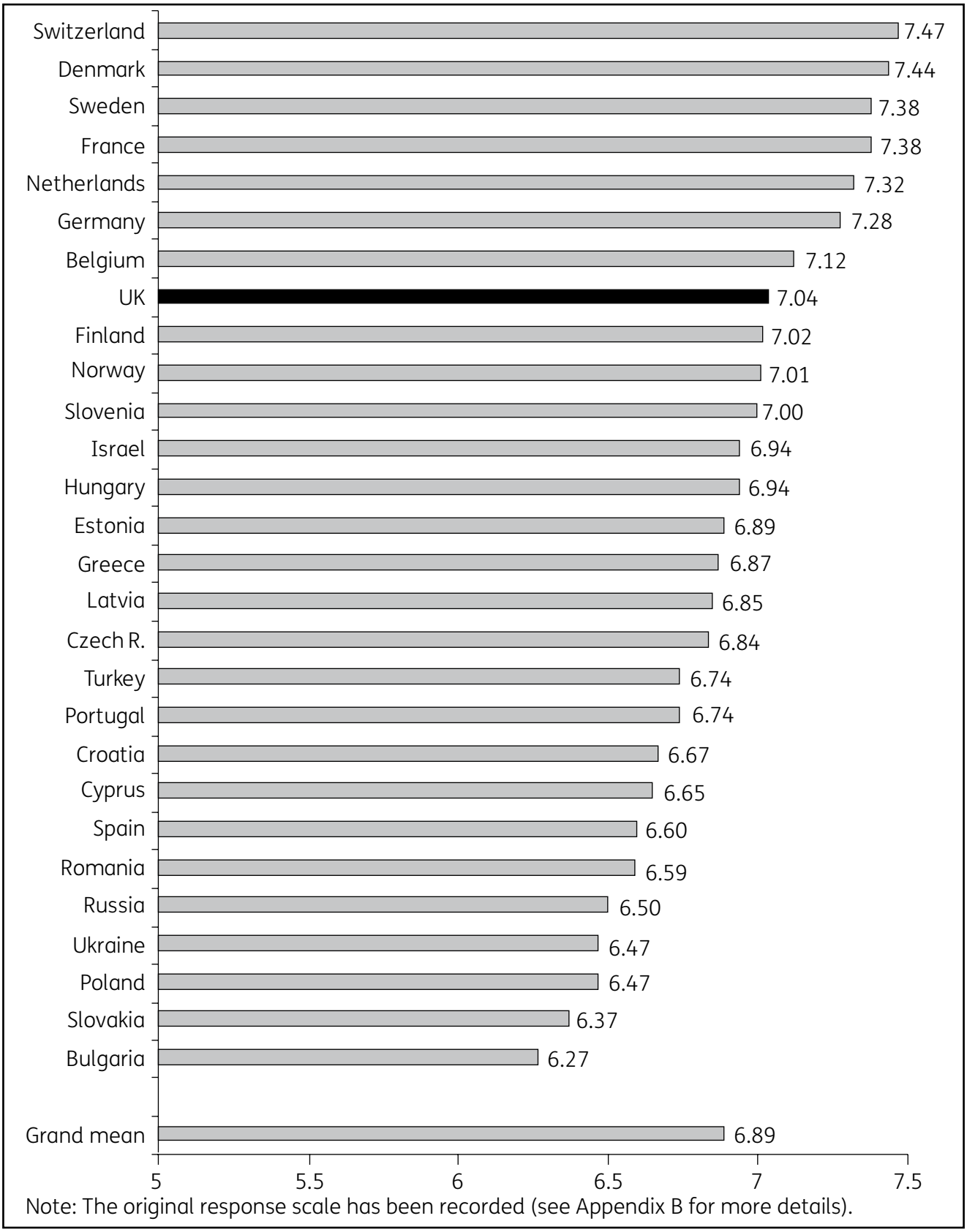
Figure 3.18 Urbanisation – proportion of the total population living in urban areas by ESS country



3.2.6 Cultural values

Figure 3.19 shows the mean endorsement of the autonomy-embeddedness value dimension. Higher numbers indicate more cultural emphasis on autonomy (such as individual independence), which is for example highly valued in Switzerland. Lower numbers indicate a greater cultural emphasis on embeddedness (such as family and elders), which is, for example, highly valued in Bulgaria. The measure is based on people's value ratings as assessed through the ESS. It is more fully described in Appendix B. The UK ranks eighth on this measure which indicates a relatively high level of endorsement for autonomy.

Figure 3.19 Cultural values (valuing autonomy or embeddedness) by ESS country

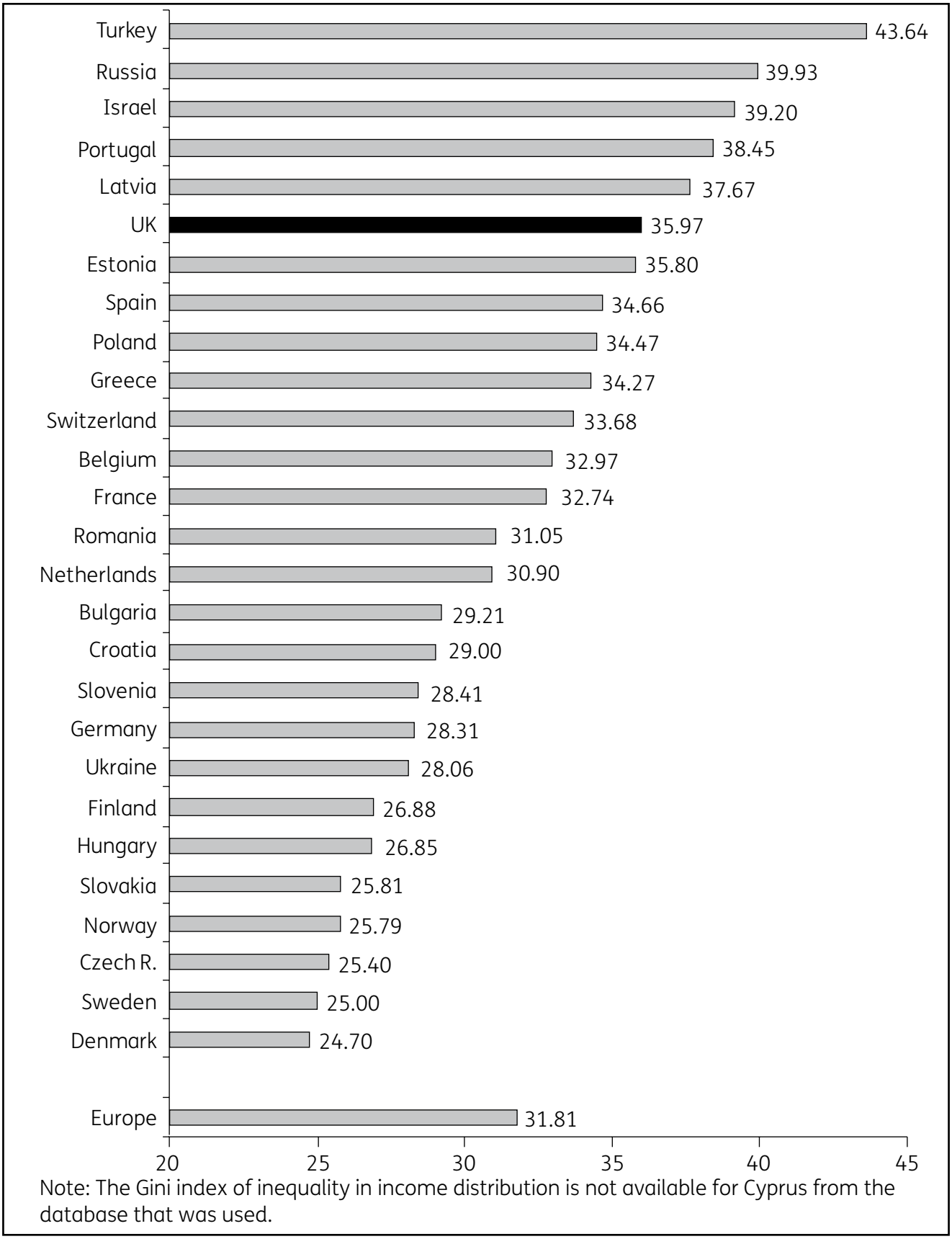


Note: The original response scale has been recorded (see Appendix B for more details).

3.2.7 Gini index (inequality in society)

Figure 3.20 shows the Gini index of inequality in income distribution across 27 of the ESS countries. There are considerable differences among the countries: Turkey has the highest level of inequality, whereas Denmark has the lowest. The UK is the sixth most unequal country across the ESS countries.

Figure 3.20 Inequality of income distribution in society – Gini index by ESS country



Note: The Gini index of inequality in income distribution is not available for Cyprus from the database that was used.

3.3 Summary

These descriptive analyses show that countries differ quite markedly both in their average responses to the measures in the ESS and in their characteristics. Importantly, the country-level characteristics do not always align with one another, which is to say that the rank orders are different for different indicators. This supports our expectation that each can potentially make a unique explanatory contribution in the analyses that follow.

4 Multi-level results

The following sections summarise the findings of the multi-level regression models predicting the dependent variables that measure attitudes towards people over 70 and experiences of age discrimination. These are presented graphically to capture the findings efficiently.

The graphs depict the findings from the multi-level analyses that were used to address the following two questions:

- **Which characteristics of individuals best predict their attitudes to old age and their experiences of age discrimination?**

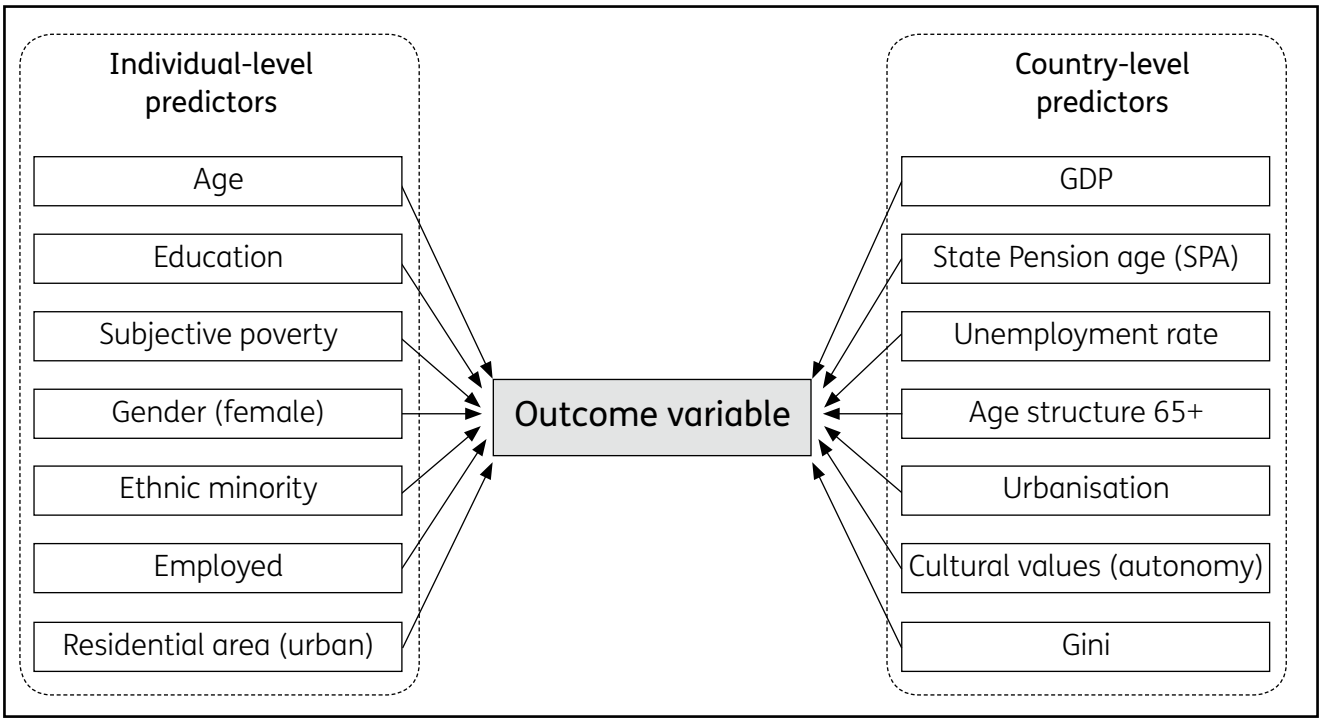
  The 'level 1' results show which of the individual-level characteristics are related to different measures, after controlling for each of the other individual-level characteristics. This allows us to distinguish the extent to which characteristics that are potentially related to one another (such as education and subjective poverty) each uniquely predict people's attitudes to old age (e.g. Abrams *et al*., 2009) when the effects of level 2 (country differences) are statistically controlled for.

- **Which national characteristics best predict people's attitudes to old age and their experiences of age discrimination?**

  The 'level 2' results show how different aspects of the national context each uniquely affect responses on the different measures after statistically accounting for the individual-level characteristics.

The overall model test for all outcome variables is summarised in Figure 4.1. Individual-level predictors are presented on the left and country-level predictors on the right of the graph. Appendices A and B contain more detailed information on how these variables were measured.

Figure 4.1 Summary of the multi-level model tested for all outcome variables



In the separate charts showing results for each outcome variable, variables that are positive predictors are shown in white boxes and variables that are negative predictors in black boxes (at $p < .10$ for country-level predictors and $p < .05$ for individual-level predictors). Appendix E contains tables with the standardised regression weights. Only significant predictors are reported and interpreted in the following sections. Note that, as recommended by the ESS, these analyses were conducted by using the design weight to adjust for a possible sampling bias.

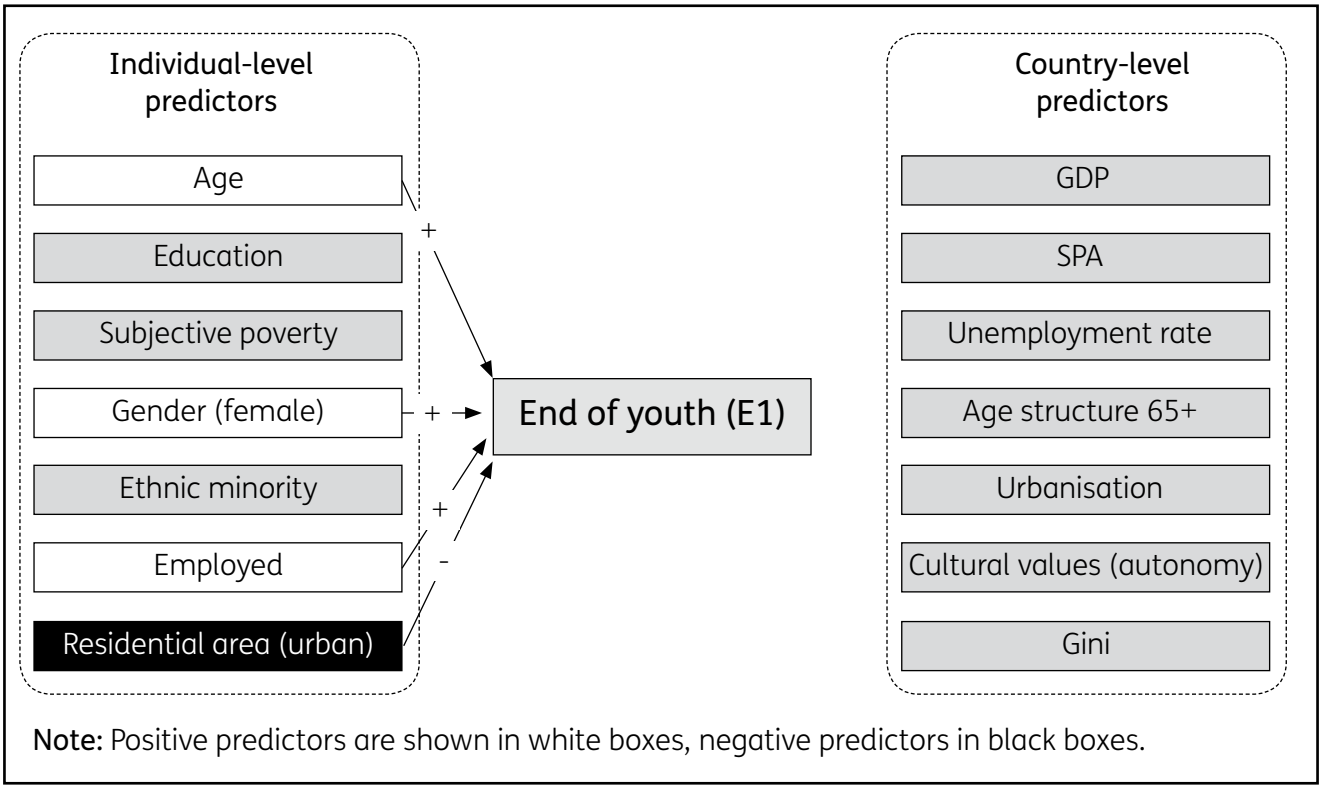
4.1 Age categorisation and identification

These variables relate to the questions of how people perceive and categorise others into 'young' and 'old', and the extent to which they identify with their own age group (the subjective importance of age to them). These variables inform us about the boundaries that are likely to be used when people apply age stereotypes, as well as the extent to which age is likely to be psychologically relevant to people in their everyday lives.

The results for people's estimates of the 'end of youth' in Figure 4.2 show that at the individual level there are positive effects for age, gender and working status. The older people are, the later they perceive the end of youth to be. Women as well as people who are in paid work perceive the end of youth later than men and people who are not in paid work. Urban dwellers perceive the end of youth to be earlier. Education, subjective poverty and ethnic minority membership are not significantly related to people's judgements about the end of youth.

None of the country characteristics contribute significantly to the explanation of the country-level variation.

Figure 4.2 Multi-level model predicting age categorisation (the end of youth)

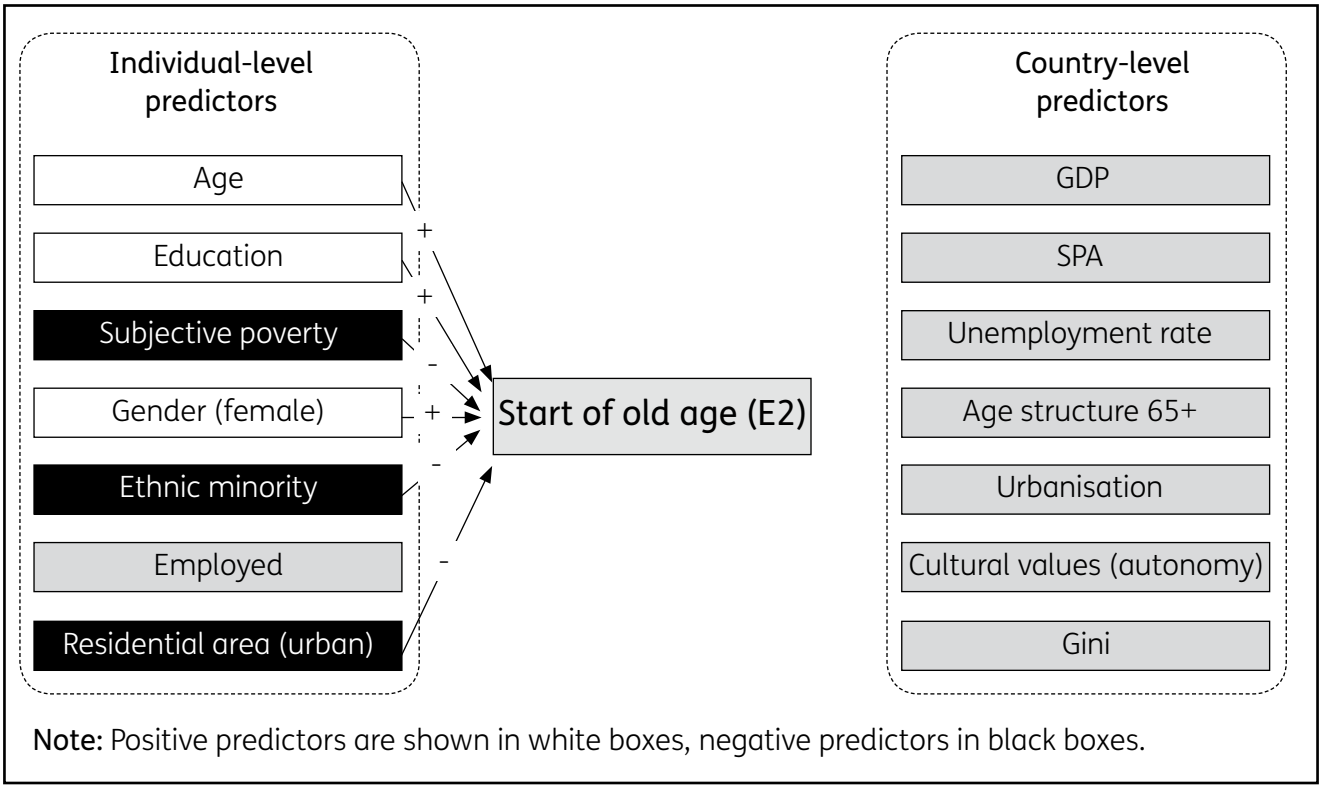


Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

Figure 4.3 shows the results of the model test on people's perceptions of the start of old age. At the individual level, consistent with the findings for perceptions of the end of youth, older people, women, and urban dwellers believe old age starts later. However, unlike the perceptions of the end of youth, education, subjective poverty and ethnic minority membership also affect perceptions of the start of old age. People with more advanced education, people who feel wealthier, and people who are not members of ethnic minorities perceive the start of old age to be later than those who feel subjectively poorer or who are minority members, respectively.

There are no significant effects of national characteristics on the perceived start of old age.

Figure 4.3 Multi-level model predicting age categorisation (the start of old age)



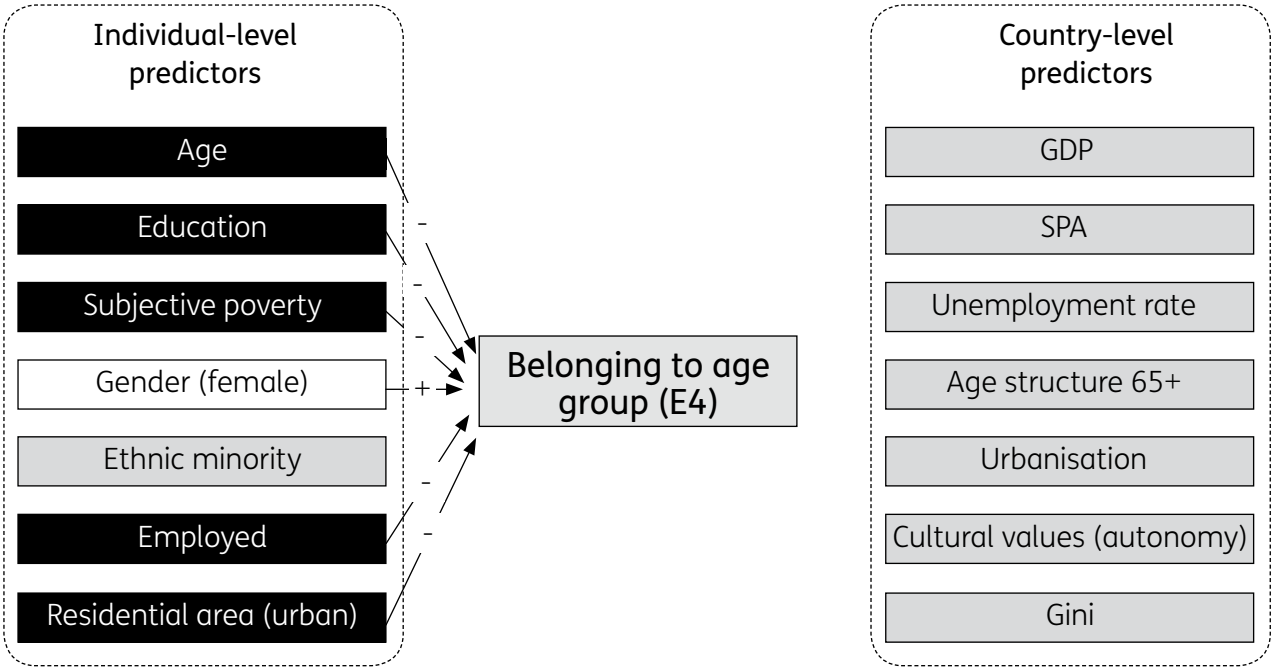
Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

These findings for the end of youth and start of old age highlight two points. Because the two measures are influenced by different variables, it seems that the end of youth and start of old age are distinct concepts in people's minds. Moreover, it seems that the onset of categorising people as having reached old age, arguably the more critical issue in terms of the impact of old age stereotypes and ageism that affects older people, is related to people's social status (denoted by majority membership, education and wealth). We speculate that perhaps these individuals in higher status positions are more likely to be in occupations or professions that continue into later life which could provide a sense of continuity that might defer the categorisation of when old age starts.

There are no country-level effects on age categorisation as may have been expected. It might have been expected that the age structure, degree of urbanisation or SPA may have had an effect, however, it seems that if any of these factors are influential they have a bearing via the individual level variables rather than independently of them.

Figure 4.4 shows the model tests for people's sense of belonging to their own age group (identification). At the individual level, men identify less with their age than do women, and levels of identification are lower among older, better educated, subjectively wealthier, employed and urban dwelling respondents. Ethnic minority membership is not significantly related to age identification. There are no significant effects of country-level variables. These results seem to suggest that people with more power or status in society are less likely to see age as an important part of their identity, or conversely that age is subjectively a more important part of the identity of those who have less power and status. There could be various reasons for this pattern, including that the latter set of people find that their age has a stronger bearing on the way others treat them.

Figure 4.4 Multi-level model predicting age identification (feeling of belongingness to one's age group)



Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

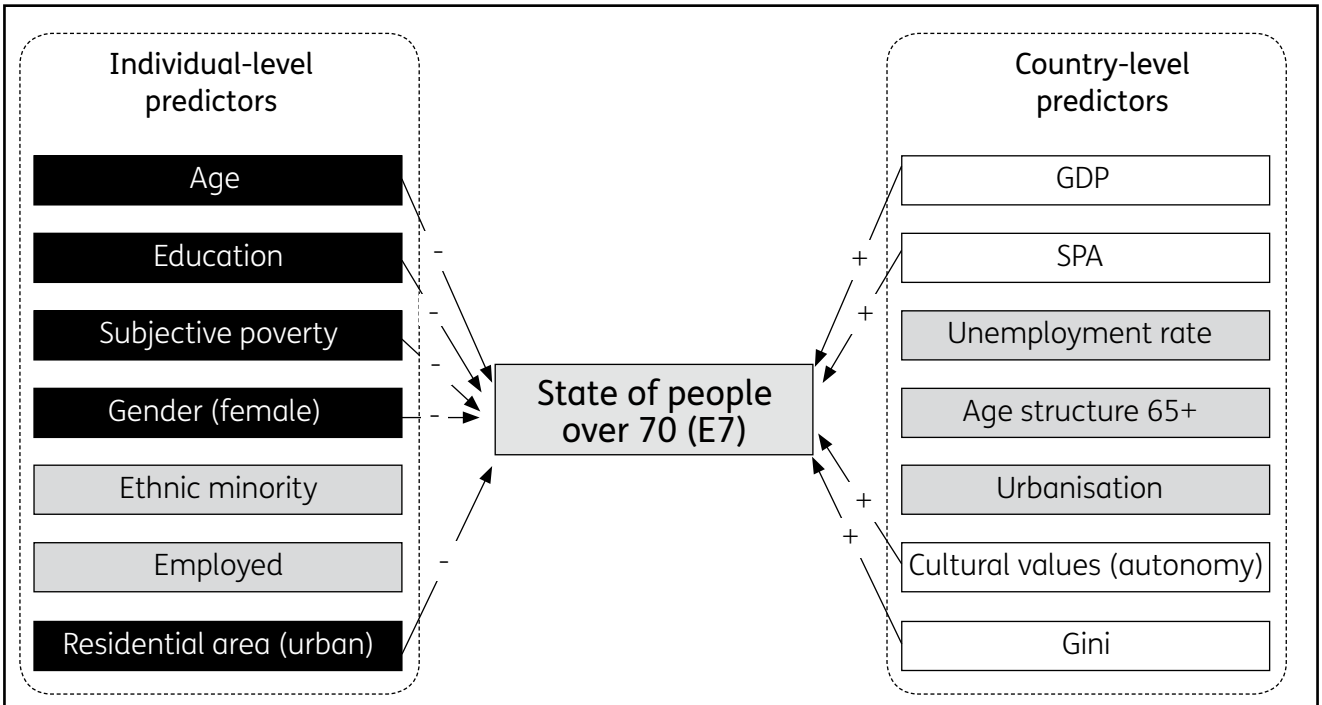
To summarise, there are clear effects of the individual-level variables on people's perceptions of age and sense of age identity. None of the differences that exist between countries in the country-level variables appear to have any impact on these perceptions or identification.

4.2 Perceived status of people over 70

Perceptions of status are an important underlying basis for prejudice and discrimination because people are much more likely to attend to the priorities and concerns of high status than of low status others. Figure 4.5 shows that people who are older, better educated, but who feel subjectively poorer and are living in urban areas perceive the status of people over 70 to be relatively lower. On the other hand, men perceive the status of older people to be higher than women do. Ethnic minority membership and being in paid employment were not significant predictors.

A number of national characteristics are positively associated with perceived status. People in countries with higher GDP, higher SPA (for men), or a cultural emphasis on autonomy values perceive people over 70 to have higher status. Interestingly, people over 70 are also perceived as having higher status in countries with higher levels of inequality in income distribution (Gini). Perceptions of status are not affected by unemployment rate, age structure or the degree of urbanisation.

Figure 4.5 Multi-level model predicting perceptions of the status of people aged over 70

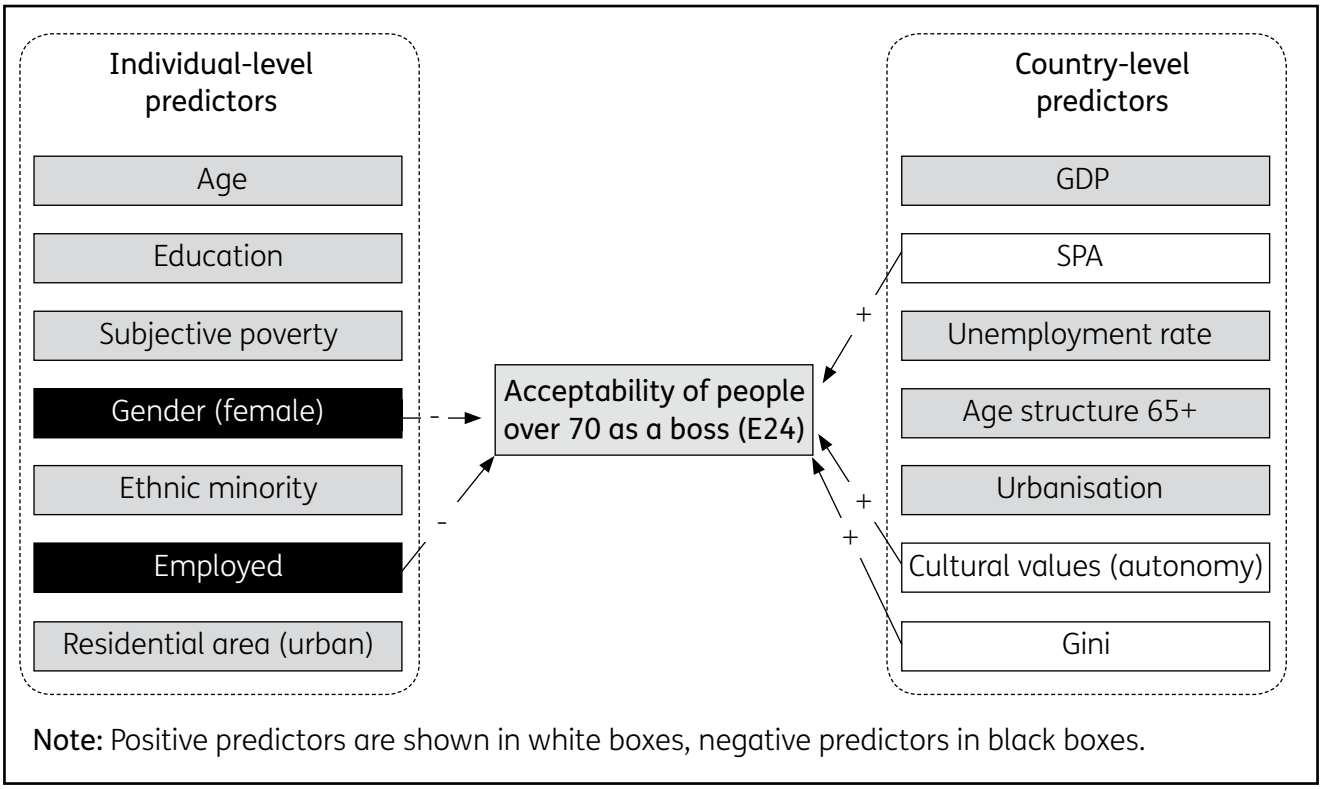


Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

Figure 4.6 shows the model test for individuals' judgements of the extent to which people regard it as acceptable to have a boss aged over 70. Women and people who are employed are more likely to say that an older person is less acceptable as a boss. No other individual-level variables affect perceived acceptability.

At the country-level, apart from GDP, the findings match those for status, as described previously. Acceptability of an older boss is higher in countries with higher SPAs (for men), a cultural emphasis on autonomy values and higher inequality in the distribution of income. There are no effects of GDP, unemployment rates, age structure or the degree of urbanisation.

Figure 4.6 Multi-level model predicting status of people over 70 in regard to their acceptability as a boss



Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

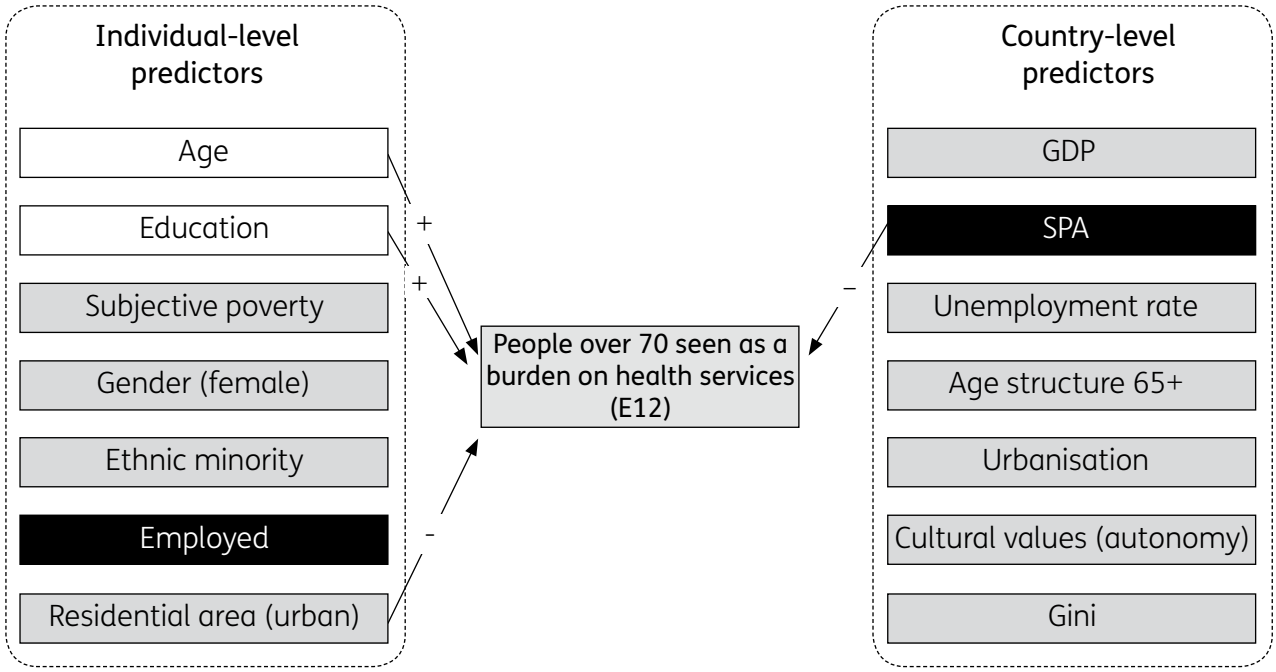
To summarise, the status of older people – either assessed as perceived status in society or perceived acceptability of older people being a boss at work – is consistently related to the working status of individuals. People in paid employment perceive the status of older people to be lower than people who are not in paid employment. A number of other individual-level variables are related to the perceived status of older people; although, the effects depend on how status is measured. The SPA, cultural values of autonomy and inequality in the distribution of income are all consistently related to the perceived higher status of older people in society.

4.3 Perceived threat from people over 70

Threat is measured both in terms of the potential threat to health and the potential threat to the economy. Figure 4.7 shows the model tests for perceptions of the burden that people over 70 place on health services. Older and better educated people are more likely to think that older people are a burden on health services, whereas employed people are less likely to think that older people are a burden to health services in their country. People's subjective poverty, their gender, whether they belong to an ethnic minority or live in a rural or urban area is not related to their perception of the burden older people place on health services.

Among the various country-level predictors, only full pensionable age (for men) is related to perceived health threat, which is perceived to be lower in countries that have a higher retirement age.

Figure 4.7 Multi-level model predicting perceived threat from people over 70 in regard to placing a burden on health services



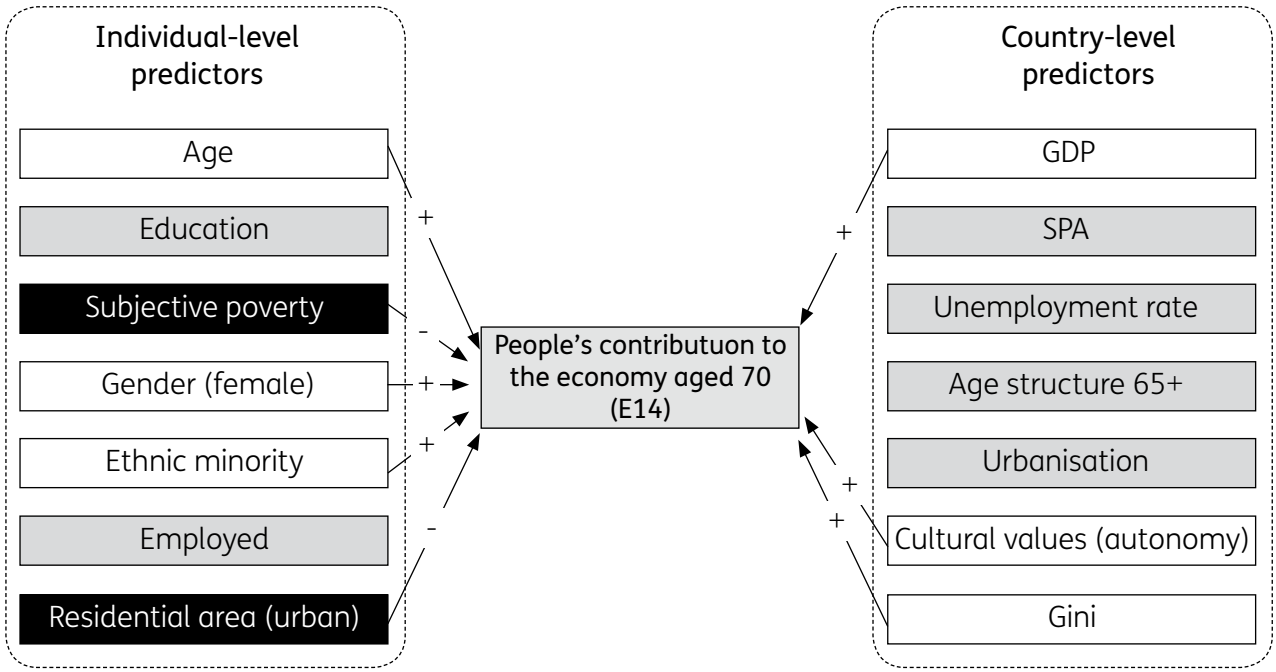
Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

Figure 4.8 shows the model test for the perceived economic contribution of people over 70. Given that most people aged over 70 are retired, this measure taps perceptions of the balance between older people seen positively (for example, as consumers) or negatively (for example, as dependents). Higher scores signify less threat (such as a perceived economic contribution that is relatively high).

Among the individual-level predictors, older people, women and people who belong to an ethnic minority perceive that people over 70 make a larger contribution to the economy. People who feel poorer and people living in urban areas perceive that people over 70 make a smaller contribution to the economy.

Country-level differences in the perceived economic threat posed by people over 70 are explained by indicators of wealth, cultural values of autonomy, and levels of inequality. Older people are seen as contributing more to the economy in countries that are wealthier, countries that value autonomy, and in countries that have greater income inequality.

Figure 4.8 Multi-level model predicting threat from people over 70 in regard to their contribution to the economy



Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

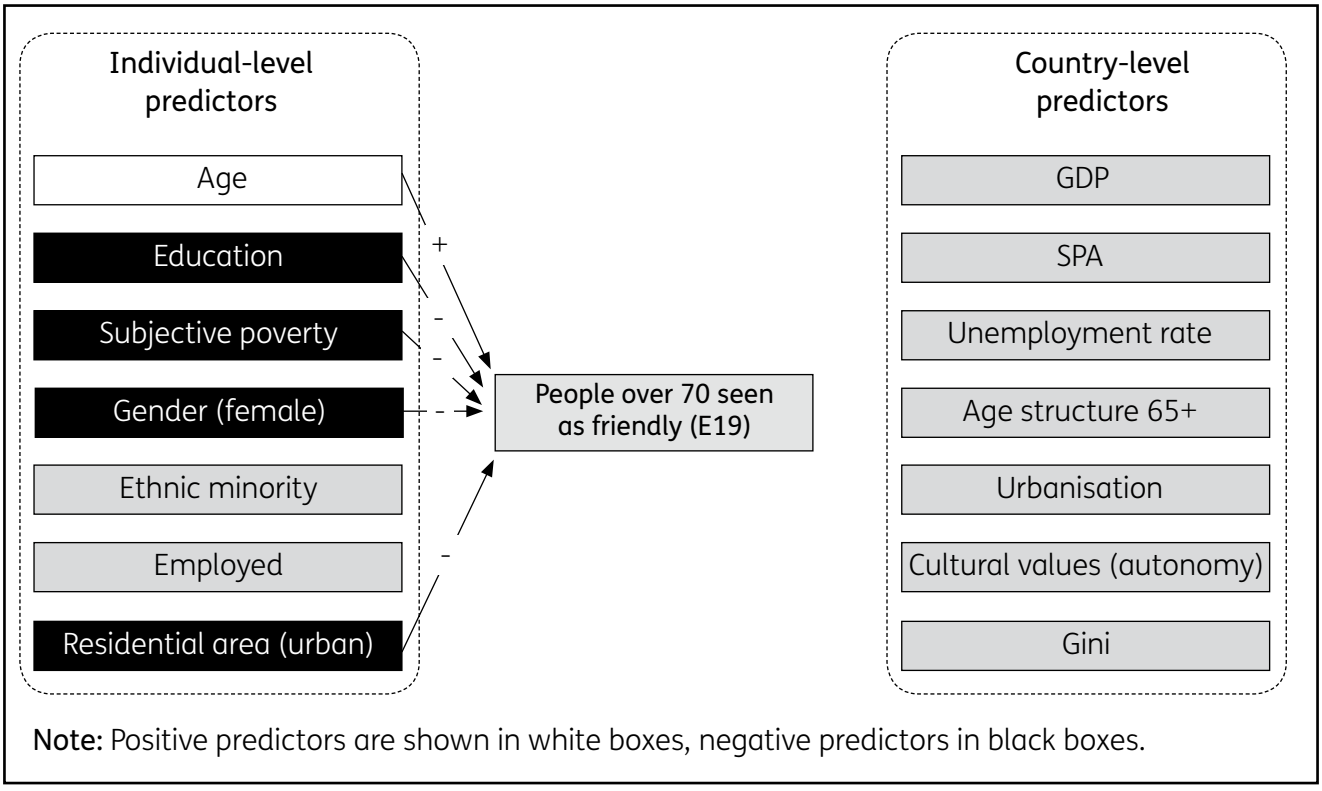
In sum, the two measures of perceived threat are predicted by different variables both at the individual-level and the country-level. This illustrates that different psychological and societal mechanisms are driving these two types of threat perception. Interestingly, economy-related variables affect perceptions of economic threat, whereas a policy-related variable (SPA for men) affects perceived threat to health services.

4.4 Stereotypes about people over 70

The next two figures show the model tests for stereotypicality, that is, the extent to which people aged over 70 years of age are seen as friendly or competent. Figure 4.9 shows that people who are older believe that others in their society may see people aged over 70 as more friendly. However, people who are better educated, those who feel poorer, women, and people living in urban areas believe that people over 70 are viewed as less friendly.

None of the country-level variables can explain differences in perceptions that people over 70 are stereotyped as friendly.

Figure 4.9 Multi-level model predicting the age stereotype of 'friendliness' about people over 70

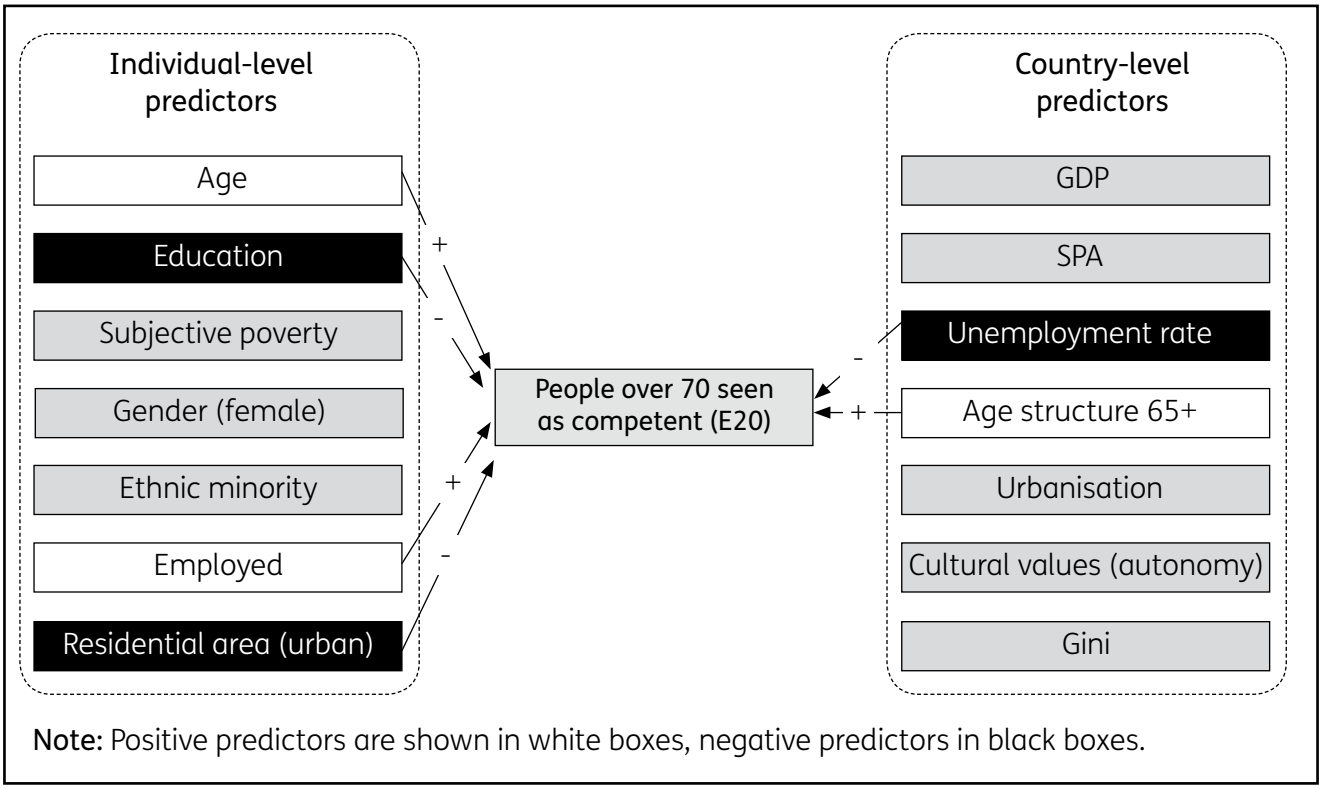


Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

Figure 4.10 shows the model test for perceptions of competence. Among the individual-level predictors the pattern is similar to that for friendliness. Older people think that people over 70 are viewed as more competent than do younger people. However, better educated people and those living in urban areas think that people over 70 are viewed as less competent than do less well educated people or rural dwellers, respectively. However, there are no significant effects of subjective poverty and gender. Perhaps importantly, people in paid employment believe people aged over 70 are seen as more competent than do people who are not in paid employment.

Two country-level predictors are significantly related to the competence stereotype. Countries with higher unemployment rates and fewer older people judge that people over 70 are stereotyped as less competent.

Figure 4.10 Multi-level model predicting the age stereotype of 'competence' about people over 70



Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

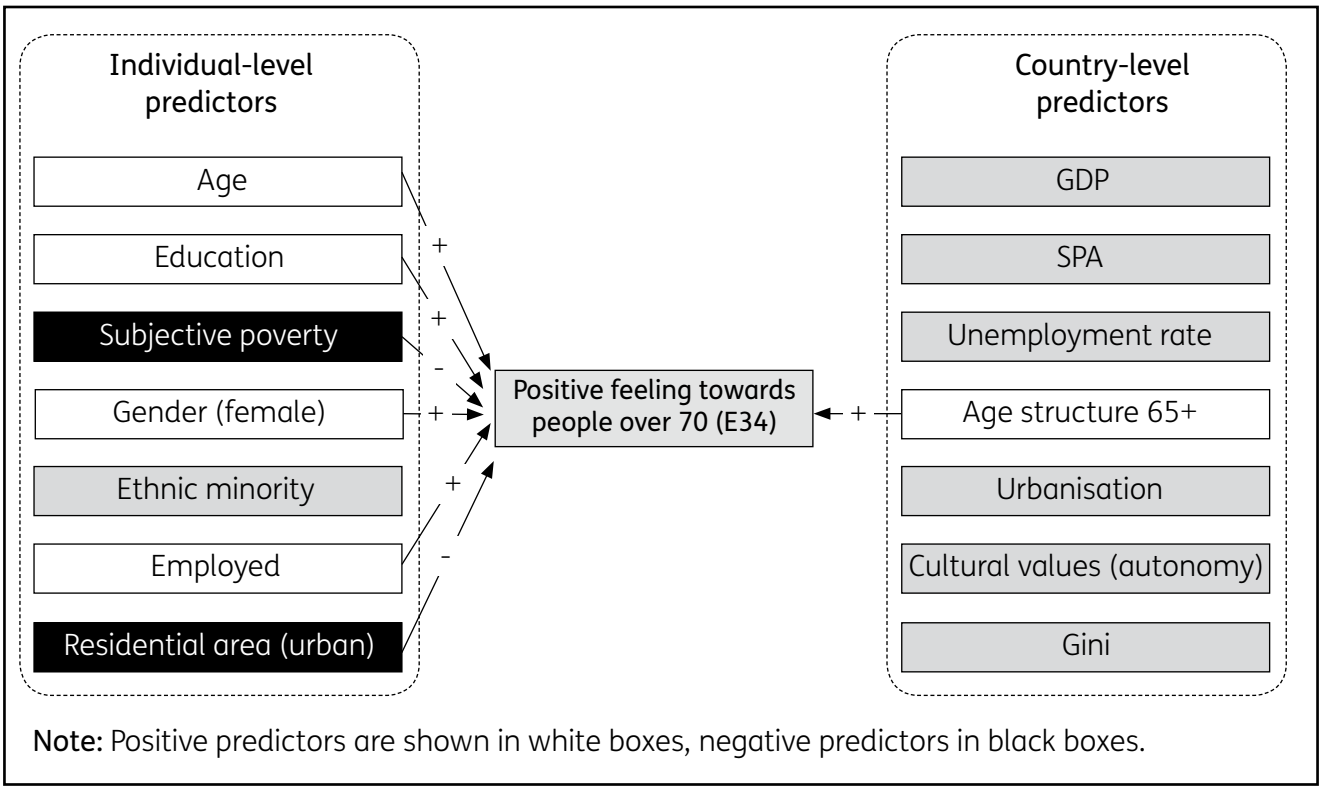
In summary, age, education and residential area are consistent predictors of age stereotypes. Importantly, country-level factors only play a role in differences in stereotypes about competence.

4.5 Direct prejudice towards people over 70

Figure 4.11 shows the model for prediction of direct prejudice. Prejudice is assessed as the extent to which people have a positive or negative feeling towards people over 70 years of age. Note that a higher number indicates more positive feelings. All of the individual-level predictors, except for ethnic minority membership, significantly predict direct prejudice. People who are older and better educated, in paid employment or female feel more positive, while people who live in urban areas or feel subjectively poorer are less positive towards older people.

At the country-level, differences in direct prejudice can be explained partially by the proportion of people aged over 65 within the country. In countries with a higher proportion of older people feelings towards those over 70 years of age are more positive. Note that this effect arises after taking account of the person's own age and cannot be explained at the individual-level.

Figure 4.11 Multi-level model predicting direct age prejudice towards people aged over 70



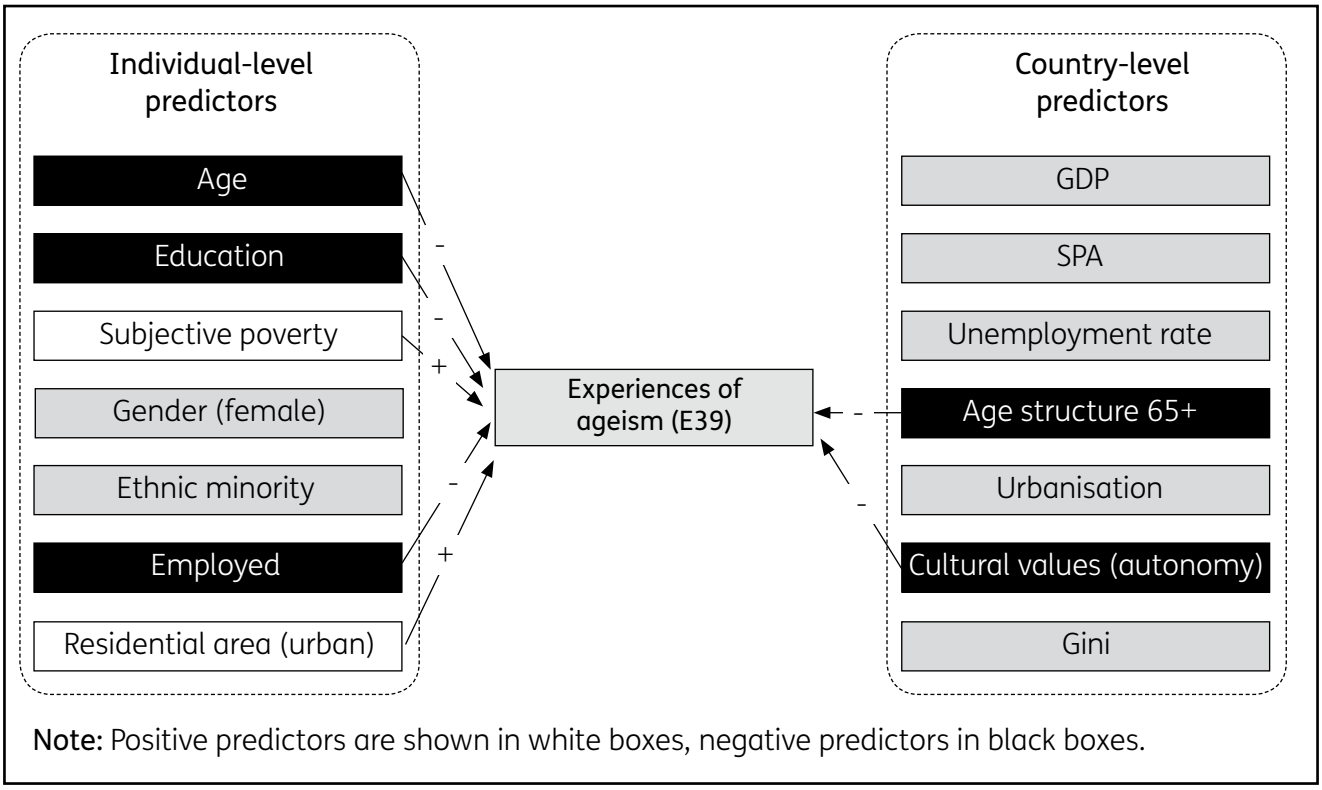
Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

4.6 Personal experience of ageism

Figure 4.12 shows the model test for people's personal experiences of ageism. At the individual-level, more ageism is experienced by people who are younger or less well educated, feeling poorer or not in paid employment. Moreover, people living in urban areas report more frequent incidents of ageism than people living in rural areas. Gender and ethnic minority membership are not significantly related to experiences of ageism. We note, in passing, that although ageism is an acute problem for younger people, it is also true that younger people report higher experiences of all forms of discrimination (racism, sexism, homophobia, and so on), whereas older people experience ageism disproportionately highly compared with other forms (see Abrams and Houston, 2006).

Country-level variables also have a distinct impact on the extent to which people experience ageism. More ageism is experienced in countries in which the proportion of people aged 65 and over is relatively lower and in countries that place less cultural value on autonomy.

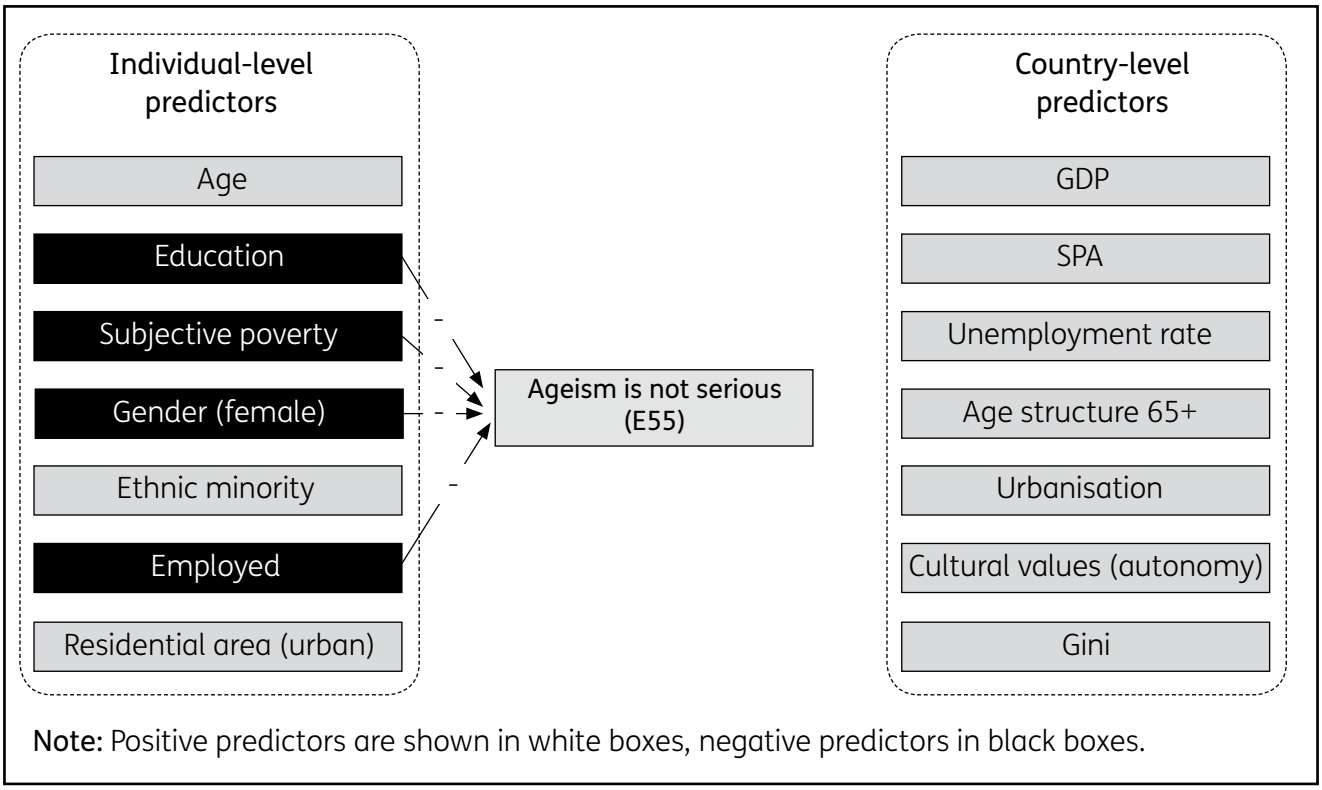
Figure 4.12 Multi-level model predicting experience of ageism



Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

Figure 4.13 shows the model test for people's perceptions that ageism is a serious issue in their society. Note that higher scores indicate that they perceive ageism to be less serious. Surprisingly, perhaps, people's age does not affect these judgements. However, people who are better educated or who feel poorer, women, and people who are in paid employment are more likely to regard ageism as a serious issue. At the country-level none of the predictors can account for differences between the countries.

Figure 4.13 Multi-level model predicting perceived seriousness of ageism



Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

In sum, whether people report that they have experienced ageism and whether they judge the issue of ageism to be a serious issue are affected by different individual- and country-level predictors. Only education is influential on both measures; even though better educated people experience less ageism they regard it to be a more serious problem. Importantly, country-level variables do not affect perceptions of the seriousness of ageism even though experiences of ageism are higher in those countries that have a lower proportion of older people and that culturally place less value on autonomy. This disparity in the findings of experiences and perceived seriousness may highlight that public perception of ageism is at best a partial barometer of the scale of the problem, perhaps because people are not always aware that 'positive' attitudes toward a group can, nonetheless, feed discriminatory actions and treatment of that group, as discussed earlier.

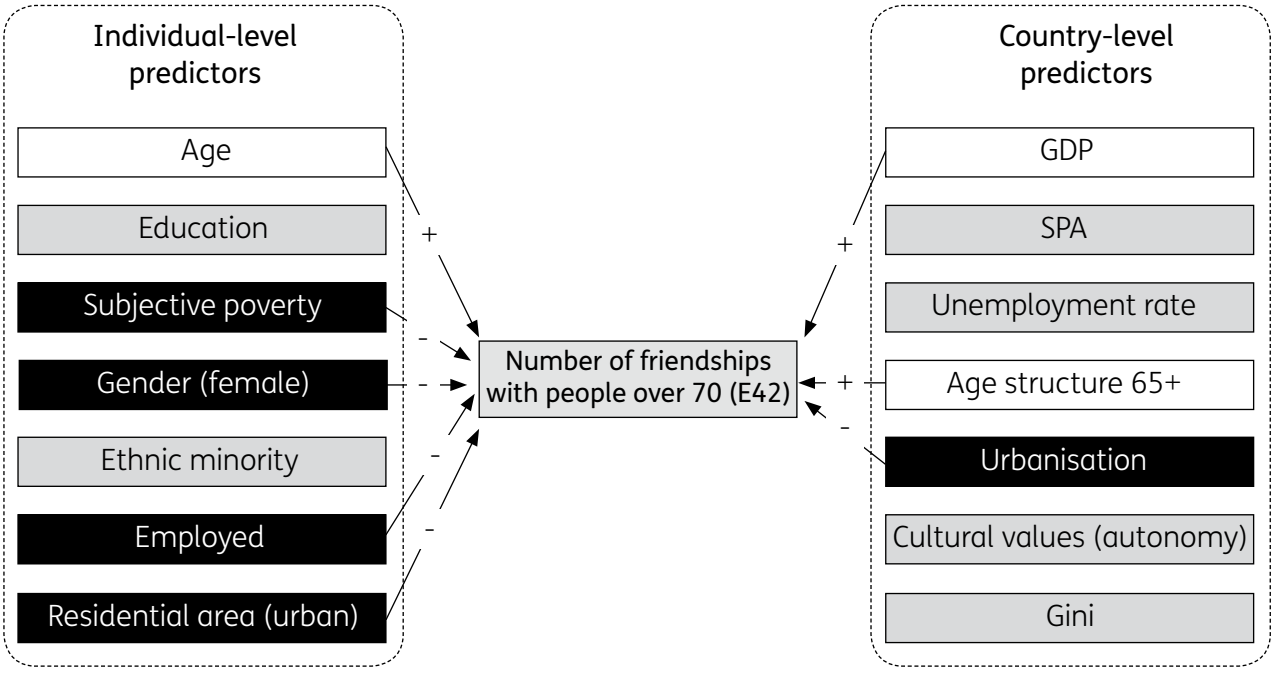
4.7 Contact with people over 70

An important index of the likely scope for ageism and age stereotypes to have harmful impacts is the extent to which younger and older people inhabit separate social worlds. Measures of intergroup (in this case intergenerational) friendship provide insight into the extent to which groups are likely to have accurate mutual understanding.

Figure 4.14 shows the model test for the extent of friendships with people aged over 70. Not surprisingly, older people have more friends aged over 70. In addition, even after accounting for the respondents' own age, women, people who are subjectively poorer or in paid employment and people living in an urban area have fewer friendships with people aged over 70.

There are also important country-level differences. The wealthier the country and the higher the proportion of people aged 65 and over, the more friendships people have with others over 70 years of age. However, the higher the proportion of people living in urbanised areas in a country, the fewer friendships people have with those aged over 70. This shows that, aside from personal characteristics that might facilitate relationships with people over the age of 70, structural factors have an important bearing on the extent to which a society sustains social connections for people over the age of 70. As social structures change there will be implications for these connections and relationships, and therefore, for age attitudes and stereotypes.

Figure 4.14 Multi-level model predicting the number of friendships with people over 70



Note: Positive predictors are shown in white boxes, negative predictors in black boxes.

5 Discussion and implications

This chapter provides an overall summary and interpretation of the findings from the multi-level analyses and evidence described in the previous chapters. We consider the patterns of results across measures and we consider the implications of these patterns for past and future accounts of attitudes to age and ageing.

Chapter 3 illustrated that people from the 28 countries across the European region differed in their average response to different questions in the European Social Survey (ESS). We also showed that these countries also differ in terms of their standing on a series of important macro-level indicators such as Gross Domestic Product (GDP), Gini and age structure. This research is the first to examine how these structural differences between countries can help to explain differences in attitudes toward old age and experiences of ageism.

Of key interest, however, is to be able to distinguish effects that arise at the individual-level (for example, the effect of a person's age or employment situation) and those that arise at the structural or country-level (such as the age ratio or GDP). The analyses conducted for this report shed light on these issues for the first time, providing a more comprehensive analysis of the bases of age attitudes and experiences of ageism than has been achieved previously.

An integrated summary of the individual and country-level indicator effects is provided in Table 5.1 (see Appendix A and B for more detailed information on how these indicators were measured).

Table 5.1 Summary of the individual-level and country-level effects on each survey measure

Measure	Individual-level							Country-level							ICC
	Age	Gender (females)	Education	Ethnic minority	Employed	Residential area (urbanisation)	Subjective poverty	GDP	Gini index	State Pension age	Unemployment rate	Age structure 65+	Urbanisation	Cultural values (autonomy)	
Age categorisation and identification															
End of youth (E1)	+	+			+	-									.14
Start of old age (E2)	+	+	+	-		-	-								.06
Belonging to age group (E4)	-	+	-		-	-	-								.04
Perceived status of people over 70															
Status of people over 70 (E7)	-	-	-			-	-	+	+	+				+	.17
Acceptability of people over 70 as a boss (E24)		-			-				+	+				+	.10
Perceived threat from people over 70															
People over 70 seen as a burden on health services (E12)	+		+		-					-					.09
People's contribution to economy aged 70 (E14)	+	+		+		-	-	+	+					+	.15
Stereotypes of people over 70															
People over 70 seen as friendly (E19)	+	-	-			-	-								.04
People over 70 seen as competent (E20)	+		-		+	-					-	+			.07
Direct prejudice towards people over 70															
Positive feeling towards people over 70 (E34)	+	+	+		+	-	-					+			.05

Continued

Table 5.1 Continued

Measure	Individual-level							Country-level							ICC
	Age	Gender (females)	Education	Ethnic minority	Employed	Residential area (urbanisation)	Subjective poverty	GDP	Gini index	State Pension age	Unemployment rate	Age structure 65+	Urbanisation	Cultural values (autonomy)	
Personal experience of ageism															
Experience of ageism (E39)	-		-		-	+	+					-		-	.04
Ageism is not regarded as a serious issue (E55)		-	-		-		-								.07
Contact with people over 70															
Number of friendships with people over 70 (E42)	+	-			-	-	-	+				+	-		.04

Note. + means a positive influence, – means a negative influence. Intraclass Correlation Coefficient (ICC) is the intraclass correlation coefficient, or proportion of variance to be explained due to differences between countries (with a potential range from 0 to 1).

Table 5.1 can be viewed in two ways. First we can consider how to explain each measure separately (row by row). For example, it is clear that perceptions of age and age identification are only explained by individual-level predictors. Despite substantial differences between countries on these variables (shown by quite large ICCs), none of the particular macro level indicators we used can explain those differences. This means that there are other types of difference between countries that are likely to be responsible, which is an avenue for future research.

The second way to look at the table is in terms of the overall impact of each individual- or country-level factor (column by column). For example, age effects all but two of the variables once the effects of the other individual- and country-level variables are statistically accounted for.

Importantly, all of the individual- and country-level indicators affected at least one of the measures, and different indicators influenced different measures. This confirms the value and importance of adopting a multi-level analysis approach because otherwise researching effects at only one level risks those particular effects being missed, inflated or underestimated because of the untested influence of the other level.

For this chapter we will begin by noting the absence of effects before concentrating on the second question of how each individual and country characteristic shapes people's attitudes to old age and experiences of ageism.

5.1 Key findings

5.1.1 Unexplained influence at the country-level

ICC's ranged from .04 to .17. However, while we are able to take account of the country differences in variance, the country-level variables that we used for our analyses did not explain country-level differences in judgements regarding the start and end of old age, age identification, judgements about the seriousness of ageism or judgements of the extent to which people over 70 are stereotyped as being friendly. Given the quite large ICCs for some of these variables (for example, the age at which people stop being young), there are likely to be country-level factors that we have not assessed which will require further investigation.

5.1.2 Individual-level effects

Age

Compared with younger people, older people perceive the end of youth and start of old age to be later in life, but they identify less strongly with an age group. They perceive the status of people aged over 70 to be lower, that they place a burden on health care but make a larger contribution to the economy, and that they are both friendlier and more competent. They feel more positive toward people aged over 70 and have more friends who are over 70. Older people say they experience less ageism than do younger people – a finding consistent with other evidence that younger people experience all types of prejudice with greater frequency than do older people (Abrams and Houston, 2006). Nonetheless, experience of ageism becomes disproportionately higher than other forms of prejudice as people age. The overall picture, moreover, is that as people get older their own attitudes towards older people become more favourable – that is, like many other social groups, they demonstrate an ingroup bias, although this bias is usually less pronounced among groups that have lower power or status.

Gender

Compared with men, women judge that ageing starts later, they identify more with their age, they accord lower status to people over 70, but view them as contributing more to the economy and feel more positive toward them. Women judge ageism to be more serious, though they think people over 70 are viewed as less friendly and less acceptable as a boss, and themselves have fewer friends aged over 70. There could be multiple reasons for these differences, perhaps one being that women are more likely to be involved in caring roles and may view ageing as less defined by occupational roles.

Education

Better educated people view old age as starting later, but they identify less with their own age, they believe people aged over 70 have lower status, that they place a burden on health care, and are viewed as less friendly and less competent. Better educated people also experience less ageism and regard it to be a more serious problem. Interestingly, they feel more positive generally to people aged over 70. This seems to suggest some ambivalence. Perhaps better educated people are aware of age stereotypes but, because they are less likely to view themselves in terms of age, they regard themselves as relatively immune to the effects of ageism.

Ethnic minority membership

In the ESS, ethnic minority membership is assessed through the question: "Do you belong to a minority ethnic group in [country]?" This measure of 'ethnicity' is blunt to say the least. Even so, we are surprised not to have found more effects of ethnic minority membership. This may well be because many different types of minority are included (for example, in the UK this would average across all minority groups), and because the 'minority' groups within different countries have widely differing cultural, ethnic and religious characteristics. Also, because the educational and occupational status of minority groups within a country can range from being part of an intellectual elite to being service workers there may be too much error in the indicator to have reliable effects. There is, however, psychological research showing that minority status per se has predictable effects on intergroup attitudes and behaviour (for example, Leader, Mullen and Abrams, 2007). This happens, for example, because as a member of a minority one's identity is more focal and salient to oneself and others than if one is a member of a majority. Therefore, minority membership is still a meaningful variable to analyse. We found that those who described themselves as members of minorities believed that old age starts earlier and that people aged over 70 make a larger contribution to the economy. This might reflect the possibility that some such groups treat older people with greater respect than others.

Working status

Compared with those who are not working, those in paid work regard youth as extending later, identify less with their age, and feel it would be less acceptable to have someone aged over 70 as a boss. They experience less ageism, but they regard it as a more serious problem even though they have fewer friends aged over 70. Nonetheless, they regard people over 70 as making a more positive contribution to the economy and as being more competent. It is difficult to assess the implications of these effects. It may be that people in work simply have less opportunity to form judgements about older people but they may have concerns about the problems they themselves might face as they age.

Residential area

For various reasons we might expect that people in urban areas are likely to have a different profile of friends and work colleagues than those living in rural areas. Indeed, people living in urban areas perceived youth as ending and old age as starting earlier, and they identified less with their age. They regarded the status of people aged over 70 to be lower, and that people aged over 70 contribute less to the economy. They also judged people aged over 70 to be less friendly, and less competent, and they had more negative feelings toward people aged over 70. They had experienced more ageism, and had fewer friends aged over 70. This seems to reflect the fact that people living in urban areas are more likely to be surrounded by younger people than by older people. Regardless of their own age, they come to regard old age negatively and they distance themselves from being old in various ways. This pattern is concerning because it suggests an urban/rural age division in social attitudes, with quite different pressures and priorities in each context. In particular, however, it suggests that older people living in urban contexts may find themselves at the sharper end of ageism.

Subjective poverty

Although there is a simple quantitative measure of income in the ESS, it is difficult to calibrate across countries. Therefore, we focused on a (highly related) subjective measure of people's perception of their income (such as whether they find it very difficult to live on their present income or not). The picture to emerge is clear. People who feel poorer believe that old age starts earlier, they identify with age less, view people aged over 70 as having lower status, as contributing less to the economy, and as being stereotyped as less friendly. They feel less positive toward them and have fewer friends aged over 70. They experience ageism themselves more, and they regard ageism to be a more serious problem. This suggests that those who have less financial independence regard people over 70 rather negatively and distance themselves from relationships with older people, and are more concerned about the ageism they may face. It is important to remember that these effects of subjective poverty exist even after statistically accounting for the age of the respondent.

Summary of the effect of individual measures

To summarise the effects of the individual measures, there are primarily positive effects of age and being female, but primarily negative effects of being an urban dweller, subjectively poorer and in work. This suggests, perhaps, that efforts to influence people's perceptions and attitudes about old age may in some circumstances be more necessary among younger, poorer male urban dwellers than among other sectors of society.

5.1.3 Country-level effects

GDP index

People living in countries with higher GDP regard the status of people aged over 70 more highly, believe they contribute more to the economy, and are more likely to have friends who are over 70. This may well reflect the possibility that countries with higher GDP have a higher proportion of wealthy (high status) people who are older. Conversely, it raises the possibility that decline in a country's GDP, for example during a recession, could have negative ramifications on the perceptions of older people's status and contribution to the economy.

Gini index

Like GDP, Gini reflects a country's development. Unlike GDP, which reflects a country's productivity, Gini is an index of the inequality of income distribution in a given society. Past research has indicated

that tolerance towards specific outgroups tends to decline as national income inequality rises (for example, Andersen and Fetner, 2008). However, here we found the opposite effect, such as that people in countries with higher levels of inequality judge the status of people aged over 70 to be higher and that they contribute more economically. Inequality also seems to promote the acceptance of bosses over 70. Although this finding may seem surprising, it is possible that it arises from a specific age stereotype of wealthy retired people who are able to afford a comfortable lifestyle. It may be that this particular age stereotype is more salient in countries in which there is a greater disparity between rich and poor than in countries in which the population, including the elderly, are more equal with regards to their income. Moreover, it should be borne in mind that this finding does not contradict the fact that higher GDP is associated with more positive effects. Although we have not tested interactive effects of country-level factors, it is conceivable that the apparently positive effects of inequality are concentrated in countries that have a higher GDP.

State Pension age

To date there has been little clear evidence about how State Pension age (SPA) affects attitudes to ageing. In fact, like Gini, a later SPApositively affects the perceived status of people aged over 70 and their acceptability as a boss. It also reduces perceptions that they place a health burden on society. In other words, increases in the SPA appear to have only positive effects. The age boundary seems likely to create both a financial and perhaps a social norm that people use to judge whether or not people should be treated differently. Retiring, or receiving a pension, also seems likely to cause changes in behaviour and this too might affect perceptions of the people younger and older than that age group. It would be valuable for future research to test systematically the impact of altering such age-defined boundaries on attitudes and expectations of, and among, older workers.

Unemployment rate

Unemployment rates may affect many things about a country and, importantly, it appears to affect the central negative feature of age stereotypes. We found that countries with higher unemployment rates are less likely to judge people aged over 70 as competent, suggesting that if unemployment rates go up it may be older people who are given less opportunity to remain in, or join the workforce.

5.1.4 Proportion of population aged 65 and over

We had expected that population proportions might influence intergroup attitudes. Countries with a higher proportion of people aged 65 or above believe people aged over 70 are viewed as more competent. People in these countries have more friends over 70, feel more positively towards people aged over 70, and are less likely to experience ageism directly. This seems to indicate that as a population ages the consensual majority becomes more favourable towards old age. However, as population ageing continues it seems conceivable that younger people in such populations may feel relatively more marginal and possibly disadvantaged (for example, in terms of electoral influence, or pension provision), which may adversely affect their attitudes towards older people.

Urbanisation

At the individual-level we noted how people living in urban areas expressed less favourable views of people over 70. At the country-level, however, degree of urbanisation has only one effect. People in more urbanised countries had fewer friends who are aged over 70. Both of these effects suggest that urbanisation potentially weakens the situation of people aged over 70, and that perhaps the urban isolation of older people is an issue that requires closer attention.

Cultural values (autonomy)

We expected that countries that value embeddedness more strongly would honour and respect older people more, and thus express more favourable attitudes towards older people. However, this expectation was not borne out. In fact, those countries that value individual autonomy regard the status of people aged over 70 and their acceptability as a boss to be higher, and view them as contributing more to their economy. In such countries, they also experience less ageism themselves.

Summary of the effect of country-level measures

Taking the country-level variables together the picture is one in which richer and more unequal countries, countries with later State Pension ages, countries with a higher proportion of people aged over 65, and countries that value autonomy more (such as independence from others as opposed to an orientation towards the family and elders) have a more favourable view of the status of people aged over 70. It is important to recognise that each of these country-level variables has a distinct impact. For example, as can be seen from the previous chapter, whereas Denmark is one of the countries with the highest autonomy values, it has the least inequality, and a median State Pension age index. So, whereas values have a positive impact on perceptions of status in Denmark, its income equality does not.

5.2 Discussion

5.2.1 Modernisation, conflict or something else?

Modernisation theory holds that as countries progress they become less tolerant of old age, yet this clearly contrasts the findings here. Similarly, cultural theories might lead one to expect that more traditional cultures would exhibit more respect for older people. Again, this does not appear to be supported by the evidence. On the other hand, conflict theory suggests that greater inequality and perhaps an age structure which tilts more toward old age might foster enmity against older people from, for example, those who are in work. We found no clear evidence that these structural variables had such effects. Indeed, the pattern is consistent with the idea that wealthier, but more unequal countries, and those that value autonomy rather than tradition, are the ones which are likely to continue to value older people generally and in the workplace. A possible reason for this may be that these are countries in which older people actually do have greater power, control and resources, a fact which they and others recognise.

The country-level effects are interesting in policy terms, in part because some of the indicators are ones which are directly within Governments' control. For example, inequality can be addressed by taxation and spending, and State Pension ages are amendable by legislation.

Evidence from the individual-level variables indicates that within countries there are clear prejudices at work. First, people are more favourable towards people of their own age than those of other ages. Second, people who have less contact with people aged over 70, who tend to be wealthier male urban dwellers, are also likely to hold more negative perceptions of people aged over 70 and ageing. These trends seem consistent with modernisation theory and with conflict theory.

Taking all of the evidence together it seems that none of the mainstream theories adequately capture the influences on attitudes to age and experiences of ageism. We can be confident that there are differences between countries that affect these attitudes, but they do so in ways that do not fit easily into a single explanatory framework. It is clear, however, that old age is of relatively greater concern to those who have fewer economic and social advantages. People who are better educated, who work, who live in urban areas, or who feel relatively wealthier (generally the more

powerful people in society) tend to have less contact with people aged over 70, to regard ageism as less serious, to consider that people over 70 have lower status, and not to identify with their own age. This is a matter for concern because if these more powerful people are socially and psychologically disconnected from those in old age then it is unlikely that they will make issues that affect older people a priority in their planning, thinking and behaviour.

5.2.2 Conclusions and implications

Overall, this research has, for the first time, provided a large-scale and comprehensive analysis of the distinctive impact of both the individual and social structural factors that affect people's attitudes to old age and experiences of ageism. The evidence points to some potentially important questions for policy and for future research.

It is clear that ageism is a problem across the ESS countries just as it is in the United Kingdom (UK). It is, of course, a problem for young and old alike, not least because young people can expect to become old, but also because a lack of mutual connection and respect across the age range is likely to foster stereotypes, misperceptions and discrimination. This report has focused primarily on perceptions of old age, and it is certainly the case that ageism is the type of prejudice that older people experience most commonly. These facts alone mean that ageism needs to be quite high on Governments' agendas if they wish to ensure equality of opportunity across society.

Within any particular country, such as the UK, there are many good reasons and plenty of scope to promote strategies that will increase the inclusion of, and opportunities for, older people. These strategies may involve challenging patronising stereotypes, and tackling people's negative assumptions about older workers. Previous research tells us that negative stereotypes can dramatically affect behaviour in two ways. First, people holding the stereotypes act in ways that induce the targets to confirm the stereotype. Secondly, the targets of negative stereotypes are likely to perform badly in situations when they think they might be judged in terms of that stereotype. Consequently, tackling negative age stereotypes will not just reduce prejudice but will create better outcomes for people.

What this research also highlights is that the strategies deployed to deal with ageism can be developed at different levels. For example, if one wanted to enhance the perceived social status of older workers, an important area to start with would appear to be urban male workers. In addition, a broader legislative approach could be to vary or abandon fixed pension ages. Although one objective of raising retirement ages may be to ensure people contribute to the economy for longer or have more sustainable pensions, there are potentially important social and other benefits that could follow too.

Inevitably, more research is now needed. For example, we need to investigate additional country-level variables that can help to explain the quite substantial differences in people's perceptions of the onset of old age. The ascription of the label 'old' brings with it the associated stereotype of incompetence. Therefore, one way of reducing the impact of such stereotypes is to find ways to progressively extend or diffuse the boundary of the 'old' category to later in life. Understanding why countries differ in their perceptions of the threshold of old age will provide more insight into how this might be achieved.

More research is also needed to understand why countries that are objectively more equal actually seem to hold less favourable attitudes towards older people. Might this be because unequal countries tend to accord status, prestige, respect or power to elders?

We need to investigate in more detail the extent to which ageism affects different age groups (younger and older or the very old) in different ways. We also want to understand the structural

reasons for this. As the UK's society ages, and younger people begin to find themselves part of a smaller minority, this may become a more critical issue.

The very old age group should also be examined more thoroughly in future research. Preliminary findings on this age group show the general trend that they are more favourable in their attitudes to age than the 'younger old' (see Appendix F). However, there are also differences between countries that require more detailed analyses.

Finally, within the UK, we need to ensure that we monitor the impact of societal changes, such as in levels of unemployment, inequality or other factors, on ageism and age discrimination. Seeking and finding answers to these questions will equip us to ensure that society becomes more age-friendly, inclusive and enabling. Research evidence from other sources shows that these objectives are likely to reap benefits psychologically, socially and economically, not just for older people, but for society as a whole.

Appendix A Explanation of individual-level variables

The *Age Attitudes and Experiences of Ageism* module of the European Social Survey contains 55 items. They measure the concepts of age categorisation and identification, perceived status of age groups, perceived threat of age groups, age stereotypes, intergroup emotions, direct prejudice, personal experiences of ageism and intergenerational contact. The items are usually phrased to assess attitudes to young age (people in their 20s) and to old age (people over 70). In the present report only the latter were used. Furthermore, in an effort to reduce the set of dependent variables, intergroup emotions were excluded from the analyses and only items were used that show enough variability across countries (see Appendix D for more technical information). Responses that fall outside the range of the scale, such as 'don't know' or 'it depends' were not analysed in this study.

Age categorisation and identification

There are two items measuring age categorisation:

E1: At what age do you think people generally stop being described as young?

E2: At what age do you think people generally start being described as old?

Age identification is measured through the item:

E4: Using this card, please tell me if you have a strong or weak sense of belonging to this age group[6]. Choose your answer from this card where 0 means a very weak sense of belonging and 10 means a very strong sense of belonging.

Perceived status of people over 70

Perceived status of older people is assessed through the following two questions:

E7: I'm now going to ask you some questions about the social status that people in different age groups have in society. By social status I mean prestige, social standing or position in society; I do not mean participation in social groups or activities. [...] I'm interested in how you think most people in [country] view the status of people in their 20s, people in their 40s and people over 70. Using this card please tell me where most people would place the status of people over 70? The response scale ranges from 0 = 'extremely low status' to 10 = 'extremely high status'. This item was adapted from Garstka *et al.* (2004).

E24: Please tell me how acceptable or unacceptable you think most people in [country] would find it if a suitably qualified 70 year old was appointed as their boss? Use this card where 0 means most people would find it completely unacceptable and 10 means completely acceptable.

6 Note that respondents were asked in the preceding question to which age group they feel they belong to.

Perceived threat from people over 70

Two items measure the perceived threat of older people:

E12: Using this card, please tell me whether or not you think people over 70 are a burden on [country]'s health service these days? 0 means no burden and 10 means a great burden.

E14: All things considered, do you think people over 70 contribute very little or a great deal economically to [country] these days? Please use this card where 0 means they contribute very little economically to [country] and 10 means they contribute a great deal.

Stereotypes about people over 70

Two questions assess stereotypes associated with older people:

I am now going to ask you how you think most people in [country] view people of different ages. Now think about those aged over 70. Using the same card please tell me how likely it is that most people in [country] view those over 70...

...as friendly (E19)?

...as competent (E20)?

The response scales range from 0 = 'not at all likely to be viewed that way' to 4 = 'very likely to be viewed that way'. These items were adapted from Fiske *et al.* (2002).

Direct prejudice towards people over 70

The following item measures people's direct prejudice towards older people:

E34: And overall, how negative or positive do you feel towards people over 70? Please tell me on a score of 0 to 10, where 0 means extremely negative and 10 means extremely positive.

Personal experience of ageism

The questions assessing experiences of ageism were phrased as:

E39: In particular, how often in the past year has someone treated you badly because of your age, for example by insulting you, abusing you or refusing you services? Response scale ranges from 0 = 'never' to 4 = 'very often' (interviewers were instructed that 'abuse' can be either verbal or physical abuse). This question was adapted from an item previously included in the Age Concern England 2004 and Equalities Review data (Abrams and Houston, 2006) and the more detailed Age Concern England 2006 survey data (Ray *et al.*, 2006).

E55: How serious, if at all, would you say discrimination is in [country] against people because of their age – whether they are old or young. Choose your answer from this card.

Very serious
Quite serious
Not very serious
Not at all serious
(It depends)
(There is no age discrimination at all in [country])
(Don't know)

Contact with people over 70

The item assessing intergenerational contact is as follows:

E42: About how many friends, other than members of your family, do you have who are aged over 70?

None
1
2-5
6-9
10 or more
(Don't know)

This item is adapted from research on Pettigrew's Intergroup Contact Model (Pettigrew, 1998).

The socio-demographic individual-level predictors

A number of socio-demographic variables related to attitudes to age (Abrams *et al*., 2009). These variables are:

- Age (calculated from year of birth)
- Gender: recoded as 0 = 'male', 1 = 'female'
- Education (F6): What is the highest level of education you have achieved? Please use this card:
    1. Not completed primary education
    2. Primary or first stage of basic
    3. Lower secondary or second stage of basic
    4. Upper secondary
    5. Post secondary, non tertiary
    6. First stage of tertiary
    7. Second stage of tertiary
    8. (Don't know)
- Subjective poverty (F33): Which of the descriptions on this card comes closest to how you feel about your household's income nowadays?
    1. Living comfortably on present income
    2. Coping on present income
    3. Finding it difficult on present income
    4. Finding it very difficult on present income
    5. (Don't know)
- Ethnic minority membership (C32): Do you belong to a minority ethnic group in [country]? (Interviewers were instructed that 'belong' refers to attachment or identification).
    1. Yes
    2. No
    3. (Don't know)

This item was recoded: 0 = 'not belonging to an ethnic minority' and 1 = 'belonging to an ethnic minority'.

- Working status (variable labelled as 'mnactic'): And which of these descriptions best describes your situation (in the last seven days)? Please select only one.

  1. In paid work (or away temporarily) (employee, self-employed, working for your family business)
  2. In education, (not paid for by employer) even if on vacation
  3. Unemployed and actively looking for a job
  4. Unemployed, wanting a job but not actively looking for a job
  5. Permanently sick or disabled
  6. Retired
  7. In community or military service[7]
  8. Doing housework, looking after children or other persons
  9. (Other)
  10. (Don't know)

  The question was recoded as 0 = 'not paid working status' (category 1) and 1 = 'paid working status' (category 2-8).

- Residential area (F5): Which phrase on this card best describes the area where you live?

  1. A big city
  2. The suburbs or outskirts of a big city
  3. A town or a small city
  4. A country village
  5. A farm or home in the countryside
  6. (Don't know)

  The item was recoded as 0 = 'rural' (category 4-5) and 1 = 'urban' (category 1-3).

[7] This code does not apply to jobs in the military but to compulsory military service only.

Appendix B Explanation of country-level predictors

A total of eight country-level variables were selected as predictors for this study. These variables were compiled from a variety of data sources, such as Eurostat, UNdata and the CIA World Factbook[8]. The most important criterion for inclusion of country-level variables in the model was that data were available for a comprehensive set of European Social Survey (ESS) countries. It was decided that there should be data for at least 25 ESS countries so that a reasonable sample size at the country-level could be maintained.

A second point to consider is that the selected macro-level variables must not be too highly correlated with each other as this would cause multicollinearity. Multicollinearity taps into the problem of redundancy; if two or more predictors in a regression model are highly related to one another they do not provide unique or independent information in the regression. The statistical consequences are a loss of reliability in the estimate of effects for individual predictors and findings that are potentially misleading (see Tabachnick and Fidell, 2007). Appendix C shows the correlation table for the selected macro-level variables. As can be seen, all the correlations are below .80 which means that they are unlikely to cause the problem of multicollinearity in the regression model.

The selected macro-level variables contributes to the topics of affluence, age legislation, employment, burden on society, urbanisation, culture, inequality in society, and modernisation.

Gross Domestic Product

The macro-level statistic selected to measure affluence of countries is the Gross Domestic Product Index (GDPI). The index ranges from 0 to 1 with higher numbers indicating a higher gross domestic product. The GDPI is calculated using adjusted Gross Domestic Product per capita (Purchasing Power Parity US$, see also http://hdr.undp.org/en/statistics/data/calculator/). The data is available for 28 ESS countries, cover the year 2007 and were obtained from the United Nations Development Programme website (http://hdr.undp.org/en/statistics/).

State Pension age

The variable assessing different age legislations relevant to the present study is the State Pension age, published by the United Nations, Department of Economic and Social Affairs, Population Division, as the so-called Statutory Retirement Age (see also www.unpopulation.org). It is operationalised as the age at which retirees become eligible for full pension benefits. This statistic is available for females and males separately. For simplicity and to reduce the likelihood of multicollinearity, only the retirement age for males was chosen for the regression model in this study. Data covers all 28 ESS countries and is available for the year 2006.

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8 Note that data from the CIA World Factbook were obtained through Nationmaster (http://nationmaster.com), a website that compiles a wide array of country statistics and that makes them available in a user friendly way.

Unemployment

The variable assessing the unemployment situation in ESS countries is male unemployment rate for the year 2008. This is the per cent of the male labour force that are without jobs. Data is available from the CIA World Factbooks covering all 28 ESS countries for the year 2007.

Age structure

The variable assessing the burden on society due to an ageing population is the proportion of people aged 65 and over published by the CIA World Factbooks. The age structure of a population affects a country's key socio-economic issues. For instance, countries with older populations (higher proportions aged 65 and over) need to invest more in the health sector. The data covers all 28 ESS countries and is available for the year 2008.

Urbanisation

The degree of urbanisation in a country is assessed through the variable urban population. It describes the proportion of the total population living in urban areas, as defined by the country. The data is for the year 2008 covering all 28 ESS countries and is taken from the CIA World Factbook.

Cultural values

The variable measuring 'culture' comes from the Portrait Value Survey (PVQ, Schwartz, Melech, Lehmann, Burgess and Harris, 2001) fielded in the ESS. This includes a 21-item measure designed to assess basic individual values. Each portrait describes a person's goals, aspirations, or wishes that point implicitly to the importance of a value. For instance, 'following traditions and customs is important to him/her'. Regarding each portrait, respondents are asked: "How much like you is this person?" The response scale ranges from 1 = 'very much like me' to 6 = 'not like me at all'. Respondents' own values are inferred from their self-reported similarity to people described implicitly in terms of these particular values. For the present study, the responses were recoded so that higher numbers reflect more endorsement of the respective value.

Schwartz proposed in his cultural value theory a set of seven cultural value orientations that form three cultural value dimensions (Schwartz, 2006). This theory permits us to characterise cultures. Only one value dimension was used in the present research due to its theoretical relevance. This value dimension consists of autonomy and embeddedness. Countries that value autonomy are likely to devalue embeddedness and vice versa. An emphasis on autonomy means to value independence from others. This value pole is often emphasised in more individualistic-oriented cultures. On the other hand, an emphasis on embeddedness means valuing connectedness and interdependence to other people which is often associated with more collectivistic-oriented cultures. Since individualism-collectivism has often been seen as the cultural foundations that lead to more or less valuing and honouring older people (for example, see Chinese Culture Connection, 1987; Lin, Zhang and Harwood, 2004; Ng, Loong, Liu and Weatherall, 2000), Schwartz' value dimensions were here used as a quantitative measure of these two divergent cultural orientations.

The score for each cultural value orientation in a country is the mean importance rating of all the value items that represent it. Prior to computing the value scores, responses were centred to control for country biases in the use of response scales, as advised by Schwartz (2007). Embeddedness scores were then subtracted from autonomy scores to create a bipolar measure. Higher country scores reflect more endorsement of autonomy values and lower country scores more emphasis on embeddedness values.

Gini index (inequality of income distribution in society)

Inequality in society is assessed through the Gini index. It is a measure of the inequality of the income distribution expressed as a proportion, with a value of zero per cent expressing total equality and a value of 100 per cent representing maximal inequality. Data are available from 27 countries from the World Development Indicators database (collected by the World Bank). The coefficient is not available for a specific year across all ESS countries; as such the timeframe ranges between 1996 and 2003.

Appendix C Correlations among country-level indicators used in this research

Table C.1 Correlations among country-level indicators

Variable	1	2	3	4	5	6	7
1. Gross Domestic Product Index	1						
2. State Pension age	.59**	1					
3. Unemployment	-.21	-.21	1				
4. Age structure over 65	.26	.27	-.05	1			
5. Urbanisation	.47*	.30	-.31	-.02	1		
6. Cultural values (autonomy)	.78**	.36	-.33	.26	.50**	1	
7. Gini index	-.20	-.12	.22	-.38	.08	-.19	1

Note. N = 27-28. *$p < .05$, **$p < .01$. Correlations can range from -1 to +1, indicating a fully negative to fully positive relationship between variables, respectively.

Appendix D
Intraclass correlation coefficient of the attitudes to age measures

The Intraclass Correlation Coefficient (ICC) is a descriptive statistic that represents the proportion of variance in the dependent variable due to group membership, or in the present case, belongingness to a country. The ICC ranges from 0 to 1 and the higher the number the more variation can be attributed to the country-level. A rule of thumb in multi-level modelling is that an ICC of about .05 or higher requires multi-level analysis to avoid biased standard errors (Hox, 2010). Hence, computing the ICC is an important preliminary step to determine whether a multi-level analysis is needed for a given dataset and that using country-level predictors that account for any between-country variation is justified.

ICC's were computed for all items from the European Social Survey (ESS) module that assess attitudes to old age and experiences of age discrimination. For each psychological construct, items with the highest ICCs were selected for the present multi-level analyses.

Table D.1 shows the ICC's for the selected ageism module items. As can be seen, the lowest ICC is 0.036 ('Most people view those over 70 as friendly') and the highest 0.167 ('How most people view the status of people over 70'). Most of the items have ICCs higher than the .05 threshold that make it imperative to use multi-level modelling. For very few items, it appears that only a small portion of the total variance is associated with differences between countries. This is also likely to be the reason why for some variables there were no significant country-level predictors (for example, the friendliness stereotype). There is only little variance left for context variables to explain differences between countries.

Table D.1 ICCs for ageism module items

Coding in ESS	Construct and items	ICC
Age categorisation and identification		
E2	Start of old age	.056
E1	End of youth	.136
E4	Belonging to age group	.040
Perceived status of age categories		
E7	Status of people over 70	.167
E24	Acceptability of people over 70 as a boss	.097
Perceived threat of age categories		
E14	People's contribution to the economy aged 70	.149
E12	People over 70 seen as a burden on health services	.092
Age stereotypes		
E20	People over 70 seen as competent	.073
E19	People over 70 seen as friendly	.036
Direct prejudice		
E34	Positive feeling towards people over 70	.049
Personal experience of ageism		
E39	Experiences of ageism	.039
E55	Ageism is not a serious issue	.073
Contact		
E42	Number of friends with people over 70	.039

Appendix E
Standardised regression weights for the multi-level models by attitudes to age measure

Table E.1 Standardised regression weights for the multi-level models by attitudes to age measure

	End of youth E1		Start of old age E2		Age identification E4		Status 70+ E7		Acceptable boss 70+ E24		Burden on health services E12		Economic threat E14	
Grand mean	40.01	***	62.01	***	7.10	***	4.73	***	5.03	***	5.29	***	3.89	***
Individual-level effects														
Age	0.34	***	0.26	***	-0.08	***	-0.03	**	0.02		0.03	**	0.08	***
Education	0.00		0.03	***	-0.04	***	-0.04	***	0.01		0.03	**	-0.01	
Subjective poverty	-0.01		-0.05	***	-0.07	***	-0.15	***	-0.01		0.00		-0.03	*
Gender (female)	0.07	***	0.09	***	0.01	*	-0.01	*	-0.05	***	0.00		0.02	***
Ethnic minority	0.01		-0.02	*	-0.01		-0.01		0.01		0.01		0.02	*
Employed	0.02	*	0.01		-0.08	***	-0.01		-0.02	***	-0.02	*	0.00	
Residential area (urban)	-0.02	*	-0.03	***	-0.02	***	-0.03	**	0.01		0.01		-0.02	*
Country-level effects														
Gross Domestic Product	-0.07		0.01		0.00		0.18	*	-0.01		0.03		0.16	†
State pension age	0.02		0.06		0.01		0.08	*	0.14	**	-0.12	*	0.10	
Urbanisation	-0.05		-0.02		-0.05		-0.10		-0.04		-0.01		-0.01	
Cultural values (autonomy)	-0.02		-0.02		-0.05		0.13	**	0.20	***	0.12		0.16	**
Gini (inequality in income distribution)	0.03		0.06		0.02		0.15	***	0.13	**	-0.06		0.11	*
Unemployment rate	0.12		-0.03		0.00		-0.03		0.03		0.06		0.02	
Age ratio 65+	0.07		0.07		-0.05		-0.01		-0.04		0.04		0.02	

Note: †p <.10; *p < .05; **p < .01; ***p < .001. Entries are standardised regression coefficients. All predictors are centred on the grand-mean, except for dummy coded variables.

Table E.1 Continued

	Friendliness stereotype E19		Competence Stereotype E20		Direct prejudice E34		Treated badly E39		Seriousness of ageism E55		Contact to 70+ E42	
Grand mean	2.96	***	2.50	***	7.47	***	0.46	***	2.59	***	2.47	***
Individual-level effects												
Age	0.04	**	0.18	***	0.10	***	-0.08	***	0.00		0.41	***
Education	-0.05	***	-0.06	***	0.02	**	-0.03	***	-0.05	***	0.00	
Subjective poverty	-0.03	*	-0.01		-0.04	***	0.10	***	-0.07	***	-0.04	***
Gender (female)	-0.02	***	-0.01		0.07	***	0.00		-0.05	***	-0.04	***
Ethnic minority	0.01		0.01		-0.01		0.01		-0.02		-0.01	
Employed	0.01		0.01	*	0.02	**	-0.06	***	-0.02	**	-0.06	***
Residential area (urban)	-0.04	***	-0.05	***	-0.02	**	0.03	***	-0.01		-0.06	***
Country-level effects												
Gross Domestic Product	0.08		-0.03		-0.06		0.01		-0.08		0.08	*
State pension age	0.05		-0.04		0.06		-0.05		-0.07		0.03	
Urbanisation	0.06		0.06		-0.02		0.00		0.06		-0.09	*
Cultural values (autonomy)	-0.06		-0.04		-0.01		-0.07	†	-0.01		0.02	
Gini (inequality in income distribution)	-0.06		0.05		0.03		-0.06		-0.03		0.04	
Unemployment rate	0.06		-0.18	***	-0.03		-0.03		0.06		0.02	
Age ratio 65+	-0.03		0.11	**	0.09	*	-0.03	†	0.03		0.06	**

Note: †p <.10; *p < .05; **p < .01; ***p < .001. Entries are standardised regression coefficients. All predictors are grand-mean centred, except for dummy coded variables.

Appendix F
Analyses of the responses by the 'oldest old'

A third objective, somewhat tangential to the main goals of this report, is to consider whether there are any particularly striking differences between the oldest old (over 80s) and young old (65-79). The oldest old are the fastest growing age group in the UK. According to population projections the number of people over 85 is set to grow from 1.4 million in 2009 to 3.5 million in 2034[9]. This expected two and a half fold increase will mean that the oldest old will account for five per cent of the population. It is known that health and other factors can have an accelerating impact on the oldest old, but rather less is known about their social attitudes or their views about age itself. In the present research we take a preliminary step to explore whether they have a distinct profile of attitudes and experiences. The European Social Survey (ESS) provides a unique opportunity to study the oldest old as an age group of over 80 year olds. Most surveys contain too few people in that age range to be able to make any confident statements about the evidence. This appendix therefore describes how older people who are over and under 80 differ across the countries in the ESS, but more detailed analyses may be provided in future reports.

Table F.1 shows that there is considerable variation in the numbers of respondents over 80 years old, from 40 respondents in Turkey to 198 respondents in Portugal. Because some countries have smaller samples of the oldest old, 80 was considered a reasonable cut off point to distinguish between the oldest old and the young old.

9 Office for National Statistics (2010). *Ageing: fastest increase in the 'oldest old'*. Retrieved from http://www.statistics.gov.uk/cci/nugget.asp?id=949

Table F.1 Numbers and proportions of the total sample of respondents in young old and oldest old age categories by ESS country

Country	65-79	80+	Proportion 65-79 %	Proportion 80+ %
Belgium	252	77	14.3	4.4
Bulgaria	512	93	23	4.2
Switzerland	310	100	17	5.5
Cyprus	180	19	14.8	1.6
Czech Republic	290	53	14.4	2.6
Germany	520	92	18.9	3.3
Denmark	281	72	17.5	4.5
Estonia	298	80	17.9	4.8
Spain	418	135	16.2	5.2
Finland	349	108	15.9	4.9
France	330	120	15.9	5.8
United Kingdom	402	138	17.1	5.9
Greece	290	41	14	2
Croatia	270	44	18.2	3
Hungary	266	82	17.2	5.3
Israel	332	111	13.3	4.5
Latvia	393	79	19.8	4
Netherlands	302	85	14	4.8
Norway	202	51	13	3.3
Poland	223	54	13.8	3.3
Portugal	610	198	25.8	8.4
Romania	326	49	15.2	2.3
Russia	460	107	18.3	4.3
Sweden	320	92	17.5	5
Slovenia	223	52	17.3	4
Slovakia	361	62	19.9	3.4
Turkey	193	40	8	1.7
Ukraine	345	90	18.7	4.9

Aggregated across countries, there are some reliable differences between the responses of the young old and oldest old. These differences are shown in Table F.2. Continuing expected age related trends, those who are 80 years or older perceive the end of youth and the onset of old age to be later than the young old age group. They perceive it to be more acceptable to have a boss over the age of 70 and perceive those over 70 be friendlier, more competent and higher status. They also have a stronger sense of belonging to their age group than the young old. It may also be worth noting that the two groups do not differ in their experiences of age discrimination or perception of the seriousness of ageism. Additionally, both age groups have similar levels of contact with other people aged over 70, suggesting that social networks are able to be maintained as people age.

Table F.2 Mean responses of the young old and oldest old

ESS item		65-79	80+		t	df	Countries[1]
End of youth	E1	45.93	46.97	**	-2.983	9,420	DE, FR, GR, NL
Start of old age	E2	66.23	68.67	***	-9.918	9,618	EE, ES, FR, UK, GR, IL, NL, NO, SK
Belonging to age group	E4	6.92	7.49	***	-10.372	10,552	BE, BG, CZ, DE, EE, FL, FR, UK, HU, NO, PT, RU, SL,UA
Status of people over 70	E7	4.51	4.74	***	-3.658	10,746	BE, CZ, DK, FI, UK, PT, RO, SE
Acceptability of people over 70 as aboss	E24	5	5.18	**	-2.632	10,217	CY,EE
People over 70 seen as a burden on health services	E12	5.39	5.35		0.529	11,084	
People's contribution to economy aged 70	E14	4.22	4.21		0.22	10,971	
People over 70 seen as friendly	E19	2.92	3	***	-3.617	11,082	CY, DK, NO
People over 70 seen as competent	E20	2.58	2.64	*	-2.553	10,996	ES
Positive							
Feeling towards people over 70	E34	7.76	7.77		-0.247	11,270	
Experience of ageism	E39	0.47	0.47		-0.015	11,402	
Ageism not regarded as a serious issue	E55	2.51	2.54		-1.408	9,443	
Number of friendships with people over 70	E42	3.3	3.27		0.823	11,445	

Note. Differences are tested using t-tests, †p <.10; *p < .05; **p < .01; ***p < .001.

[1] Key: Belgium (BE), Bulgaria (BG), Switzerland (CH), Cyprus (CY), Czech Republic (CZ), Germany (DE), Denmark (DK), Estonia (EE), Spain (ES), Finland (FI), France (FR), United Kingdom (UK), Greece (GR), Croatia (HR), Hungary (HU), Israel (IL), Latvia (LV), Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Russian Federation (RU), Sweden (SE), Slovenia (SI), Slovakia (SK), Turkey (TR), Ukraine (UA).

We conducted further analyses of items where reliable age differences were established to discover in which ESS countries the oldest age group differed from the young old age group. The number of countries where older age group differences can be found varied quite a lot depending on which measure we examined. For the competence stereotype, young old and oldest old age groups differed for only one country, whereas for age identification the age groups differed in fourteen countries. In the UK, age group differences between the young old and the oldest old were found for perceptions regarding the start of old age, age identification and the perceived status of those over 70.

References

Abrams, D. (2010). *Processes of prejudice: Theory, evidence and intervention*. Equality and Human Rights Commission. Research Report 56 (118 pp). London, EHRC. ISBN 978 1 84206 270 8, http://www.equalityhumanrights.com/uploaded_files/research/56_processes_of_prejudice.pdf

Abrams D., Russell P. S.,Vauclair C. M. and Swift H. (Forthcoming, 2011). Ageism in Europe and the UK – findings from the European Social Survey; A report by Eurage commissioned by Age UK. Age UK, London.

Abrams, D., Crisp, R. J., Marques, S., Fagg, E., Bedford, L. and Provias, D. (2008). Threat inoculation: Experienced and imagined intergenerational contact prevents stereotype threat effects on older people's math performance. *Psychology and Aging, 23*, 934-939.

Abrams, D., Eilola, T., and Swift, H. (2009). *Attitudes to age in Britain 2004-08*. The Department for Work and Pensions (Research Report No 599).

Abrams, D., Eller, A., and Bryant, J. (2006). An age apart: The effects of intergenerational contact and stereotype threat on performance and intergroup bias. *Psychology and Aging*, 21, 691-702.

Abrams, D., and Houston, D.M. (2006). *A Profile of Prejudice in Britain: Report of the National Survey*. The Equalities Review. Cabinet Office. (108 pages).

ACAS. (2011). *Working without the default retirement age*. Retrieved from http://www.acas.org.uk/CHttpHandler.ashx?id=2976&p=0.

Age Concern England. (2004). *How ageist is Britain?* London: Age Concern England.

How ageist is Britain? (2005). *Age Concern England Report to the Commission on Equality and Human Rights*. London: Age Concern England.

Andersen, R., and Fetner, T. (2008). Economic inequality and intolerance: Attitudes toward homosexuality in 35 democracies. *American Journal of Political Science*, 52, 942–958.

Arnhoff, F. N., Leon, H. V., and Lorge, I. (1964). Cross-cultural acceptance of stereotypes towards aging. *Journal of Social Psychology*, 63, 41.

Bengtson, V. L., Gans, D., Pulney, N. M., and Silverstein, M. (2009). *Handbook of theories of aging (2nd ed.)*. New York, NY US: Springer Publishing Co.

Blanchard-Fields, F., Chen, Y., and Norris, L. (1997). Everyday problem solving across the adult life span: The influence of domain-specificity and cognitive appraisal. *Psychology and Aging*, 12, 684-693.

Bowling, A. (2005). *Ageing well: Quality of life in old age*. London: Open University Press.

Bryk, A. S., and Raudenbush, S. W. (2004). *HLM for Windows*. Thousand Oaks: Sage Publications.

Cabinet Office. (2000). *Winning the Generation Game*. A Performance and Innovation Unit Report, Cabinet Office (UK).

Carstensen, L. L. (1991). Socioemotional selectivity theory: Social acivity in the life-span context. *Annual Review of Gerontology and Geriatrics*, 11, 195-217.

Carstensen, L. L. (1992). Social and emotional patterns in adulthood: Support for socioemotional selectivity theory. *Psychology and Aging*, 7, 331-338.

Centre for Policy on Ageing. (2010). *A Review of age discrimination in primary and community health care, secondary health care, mental health care and social care services in the United Kingdom*. Retrieved from http://www.cpa.org.uk/policy/briefings/discrimination_in_health_and_social_care.pdf.

Cheung, M. W.-L., and Au, K. (2005). Applications of Multilevel Structural Equation Modeling to Cross-Cultural Research. *Structural Equation Modeling*, 12, 598–619.

Chinese Culture Connection. (1987). Chinese values and the search for culture-free dimensions of culture: The Chinese Culture Connection. *Journal of Cross-Cultural Psychology*, 18, 143-164.

Council of Europe. (2005). *Recent demographic developments in Europe*: Council of Europe Publishing.

Cowgill, D. O. (1974). Aging of populations and societies. *Annals of the American Academy of Political and Social Science*, 415, 1-18.

Cuddy, A. J. C., Norton, M. I., and Fiske, S. T. (2005). This old stereotype: The pervasiveness and persistence of the elderly stereotype. *Journal of Social Issues*, 61, 267-285.

Department for Work and Pensions. (2011). *Pensions Bill 2011: Summary of impacts*. Retrieved from http://www.dwp.gov.uk/docs/pensions-bill-2011-summary-of-impacts.pdf.

ESS Round 4: European Social Survey. (2010). *ESS-4 2008 Documentation Report*. Edition 3.01. Bergen, European Social Survey Data Archive, Norwegian Social Science Data Services.

ESS Round 4: European Social Survey Round 4 Data. (2008). *Data file edition 3.0*. Norwegian Social Science Data Services, Norway – Data Archive and distributor of ESS data.

Fee, L., Cronin, A., Simmons, R., and Choudry, S. (1999). *Assessing older people's health and social needs*. London: Health Education Authority.

Fiske, S. T., Cuddy, A. J. C., and Glick, P. (2007). Universal dimensions of social cognition: warmth and competence. *Trends in Cognitive Sciences*, 11, 77-83.

Fiske, S. T., Cuddy, A. J. C., Glick, P., and Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878-902.

Garstka, T. A., Schmitt, M. T., Branscombe, N. R., and Hummert, M. L. (2004). How young and older adults differ in their responses to perceived age discrimination. *Psychology and Aging*, 19, 326-335.

Giles, H., Noels, K., Ota, H., Ng, S. H., Gallois, C., Ryan, E. B., *et al.* (2000). Age vitality across eleven nations. *Journal of Multilingual and Multicultural Development*, 21, 308 – 323.

Giles, H., Noels, K. A., Williams, A., Ota, H., Lim, T.-S., Sik Hung, N. (2003). Intergenerational communication across cultures: Young people's perceptions of conversations with family elders, non-family elders and same-age peers. *Journal of Cross-cultural Gerontology, 18*, 1,1-32.

Golub, S., Filipowicz, A., and Langer, E. (2002). Acting your age. In T. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 277-294). Cambridge, MA: Massachusetts Institute of Technology.

Gruber, J., Milligan, K., and Wise, D. A. (2009). *Social Security Programs and Retirement around the World: The Relationship to Youth Employment*. (NBER Working Paper 14647).

Harwood, J., Giles, H., Ota, H., Pierson, H. D., Gallois, C., Ng, S. H., *et al.* (1996). College students' trait ratings of three age groups around the Pacific Rim. *Journal of Cross Cultural Gerontology, 11*, 307-317.

Hess, T. M., Auman, C., Colcombe, S. J., and Rahhal, T. A. (2003). The impact of stereotype threat on age differences in memory performance. *Journal of Gerontology: Psychological Sciences, 58*, 3-11.

Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.

Hox, J. (2010). *Multilevel analysis – Techniques and applications* (2nd ed.). New York: Routledge.

Kalwij, A., Kapteyn, A., and De Vos, K. (March 2009) *Early Retirement and Employment of the Young*. Rand Labour and Population Working Paper Series.

Krauss, L., Whitbourne, S., and Sneed, J. (2002). The paradox of well-being, identity processes and stereotype threat. In T. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 246-273). Cambridge, MA: Massachusetts Institute of Technology.

Leader, T., Mullen, B., and Abrams, D. (2007). Without mercy: The immediate impact of group size on lynch mob atrocity. *Personality and Social Psychology Bulletin*, 33, 1340-1352.

Levy, B. R., and Banaji, M. (2002). Implicit ageism. In T. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 49-75). Cambridge, MA US: The MIT Press.

Levy, B. R., Slade, M. D., Kunkel, S. R., and Kasl, S. V. (2002). Longevity increased by positive self-perceptions of aging. *Journal of Personality and Social Psychology*, 83, 261-270.

Lin, M.-C., Zhang, Y., and Harwood, J. (2004). Taiwanese young adults' intergenerational communication schemas. *Journal of Cross-cultural Gerontology*, 19, 321-342.

Maas, C. J. M., and Hox, J. J. (2005). Sufficient sample sizes for multilevel modeling. *Methodology*, 1, 86–92.

McCann, R., and Giles, H. (2002). Ageism in the workplace: A communication perspective. In T. D. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons*. (pp. 163-199). Cambridge, MA US: The MIT Press.

Nelson, T. D. (2005). Ageism: Prejudice against our feared future self. *Journal of Social Issues, 61*, 207-221.

Nelson, T. D. (Ed.). (2002). *Ageism: Stereotyping and prejudice against older persons*. Cambridge, MA US: The MIT Press.

Ng, S. H., Loong, C. S. F., Liu, J. H., and Weatherall, A. (2000). Will the young support the old? An individual- and family-level study of filial obligations in two New Zealand cultures. *Asian Journal of Social Psychology*, 3, 163-182.

Office for National Statistics. (2010). http://www.statistics.gov.uk/cci/nugget.asp?id=949 retrieved December 2010.

Palmore, E. B., and Manton, K. (1974). Modernization and status of the aged: International correlations. *Journal of Gerontology*, 29, 205-210.

Pasupathi, M., and Löckenhoff, C. (2002). Ageist behaviour. In T. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 201-246). Cambridge, MA: Massachusetts Institute of Technology.

Peace, S., Dittmann-Kohli, F., Westerhof, G. J., and Bond, J. (2007). The ageing world. In J. Bond, S. Peace, F. Dittmann-Kohli and G. J. Westerhof (Eds.), *Ageing in society: European perspectives on gerontology (3rd ed.)*. (pp. 1-14). Thousand Oaks, CA: Sage.

Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology, 47*, 65-85.

Plant, E. A., and Devine, P. G. (1998). Internal and external motivation to respond without prejudice. *Journal of Personality and Social Psychology, 75*, 811-832.

Quadango, J. (1982). *Ageing in early industrial society: Work, family, and social policy in nineteenth-century England.* New York: Academic Press.

Raudenbush, S. W., and Bryk, A. S. (2002). *Hierarchical linear models. Applications and data analysis Methods* (2nd ed.). Thousand Oaks, CA: Sage.

Ray, S., Sharp, E., and Abrams, D. (2006). *Age discrimination 2006: A benchmark for public attitudes*: Age Concern England, Policy Unit.

Schneider, D. J. (2004). *The psychology of stereotyping*. New York: Guildford Press.

Schwartz, S. H. (2006). A theory of cultural value orientations: Explication and applications. *Comparative Sociology*, 5, 136-182.

Schwartz, S. H. (2007). Draft users manual: *Proper use of the Schwartz Value Survey*. Retrieved from http://www.crossculturalcentre.homestead.com, September 2007.

Schwartz, S. H., Melech, G., Lehmann, A., Burgess, S., and Harris, M. (2001). Extending the cross-cultural validity of the theory of basic human values with a different method of measurement. *Journal of Cross-Cultural Psychology*, 32, 519-542.

Sherif, M. (1966). *In common predicament: Social psychology of intergroup conflict and cooperation*. Boston, MA: Houghton-Mifflin.

Sidell, M. (1995). *Health in old age: Myth, mystery and management*. London: Open University Press.

Stephan, W., and Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 23-46). Hillsdale, NJ: Lawrence Erlbaum.

Tabachnick, B. G., and Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.). Boston: Allyn and Bacon.

Tajfel, H. (1981). *Human groups and social categories*. Cambridge: Cambridge University Press.

The European Older People's Platform. (2007). *Towards a European society of all ages: Age statement for the European year of equal opportunities for all*. Retrieved from http://www.age-platform.org/

Third Sector First. (2005). T*hings to do, places to go: Promoting mental health and well-being in later life*. Retrieved from http://www.mhilli.org/documents/Thingstodoplacestogo-FINAL.pdf.

Uslaner, E. M. (2002). *The moral foundations of trust*. Cambridge: Cambridge University Press.

Vauclair, C.-M., Abrams, D., and Bratt, C. (2010). *Measuring attitudes to age in Britain: Reliability and validity of the indicators.* The Department for Work and Pensions (Working Paper No 90).

Warr, P. (2000). Job Performance and the ageing workforce. In N. Chmiel (Ed.), *Introduction to Work and Organisational Psychology: A European Perspective*. London: Blackwell.

In the context of Europe's ageing population an important challenge is how to respond to people's assumptions and expectations about age and ageing. Attitudes to age can affect people of all ages, and involve people's views both of themselves and of others. These attitudes have important implications for individual well-being, for age equality and for social cohesion. Understanding attitudes to age is essential if governments are to develop appropriate strategies for an ageing population.

This research explores how people's age and other demographics combine with different characteristics of the countries in which they live to affect responses to the following topics:

- age categorisation and identification;
- perceived status of people over 70;
- perceived threat from people over 70;
- perceptions of stereotypes of people aged over 70;
- how positively or negatively people feel towards those aged over 70 (direct prejudice); and
- people's personal experiences of age prejudice.

Understanding both the individual and the country-level factors that influence these measures can help us to predict and understand where problems of ageism or age misperception are most likely to arise.

The research for this study was conducted using European Social Survey (ESS) 2008/09 data, which provides representative samples from 28 countries belonging to the European region.

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DWP Department for Work and Pensions

Published by the
Department for Work and Pensions
May 2011
www.dwp.gov.uk
Research report no. 735
ISBN 978-1-84712-961-1