

Attitudes to immigration and
human values – a repeated cross-sectional
study in three European countries

A thesis submitted for the degree of Doctor of Philosophy

by

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Declaration

I declare that the work in this thesis has been done by myself and has not been submitted elsewhere for the award of any other degree. It has also not been submitted for the award of a higher degree elsewhere.

The word length is 54,084 words including appendices but not the bibliography, and does not exceed the permitted maximum of 80,000 words for a PhD.

Valmira Hoti

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Abstract

This doctoral research investigates the relationship between attitudes towards immigration and human values in three European countries; UK, Germany and Sweden. I use ESS survey data from 2002 – 2014 and new methodological approaches to examine this link and further explore if there is country specific differences and whether attitudes to immigration changes over time. In addition to this I also add various socio-demographic and political factors to the analysis. Previous research in this area is scarce and generally assumes the effect of human value dimensions on attitudes is universal and there are no country-specific differences.

To answer the question if human values shape attitudes to immigration and whether there are country specific differences I used cumulative link ordinal regression modelling which is the most appropriate statistical method for analysing such data. Analysis was carried out on a country by country basis, looking separately also at the majority native population as well as the minority ethnic population. Items contributing to the human value dimensions of universalism and conservation showed a clear association with attitudes towards immigration, which was in line with previous research. However, not all human value-attitude relationships were in agreement with Schwartz's theory of effect direction, but with some value items an opposite relationship was observed.

A new latent class approach was used to examine whether human values change over time and there was no evidence that the latent classes themselves change definition over time, implying that Schwartz is correct when he states that human values are invariant and do not change over time. While individuals may change their view and move classes, there is no evidence of the value items realigning themselves around a new latent class structure. The developed latent class model used to investigate whether the latent class definitions or profiles change over time, in the case of human values, is new and extends the multi-group latent class model into continuous groups where a linear change is expected.

The finding of this research concludes that, contrary to Sagiv and Schwartz (1995), the effect of human values on attitudes appears not to be universal, changing both over the

subsample considered and from country to country. In general, the thesis concludes that clear country differences are to be expected.

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Chapter 1. **Introduction**

1.1 Introduction

In this thesis, I will look at the attitudes to immigration and the relationship between human values, performing European cross-country comparisons between the UK, Germany and Sweden by using data from European Social Survey over the period 2002-2014. I will also investigate whether attitudes to immigration human value indicators and change over time. In addition to this, country specific effects of a wide selection of socio-demographic and political covariates on attitudes towards immigration will be examined.

In order to understand attitudes to immigration, I chose to investigate the influence of human values because they are described as having the power to drive people's behaviours towards different specific objects or situations, for example, how one might perceive minority populations (Kluckhohn, 1951; Schwartz, 1994; Inglehart, 1997).

Immigration itself is not a new phenomenon, has always been a matter of public concern, and particularly in the last century, flows of immigrants have been increasing worldwide, including UK and other European countries. The topic of immigration has therefore received a lot of publicity and media coverage, especially in the last decade. In the British press alone, there were on average more than 600 articles mentioning the word "immigration" or "migration" every month from 2006 to 2014, with a 25% increased coverage in last two years, and the word "mass" was the single most common term used to describe immigration (Allen, 2016). The media itself has been shown to promote the topic of immigration, and usually plays a role in influencing anti-immigration attitudes (Vergeer et al., 2000; Schlueter and Davidov, 2011; Meltzer et al., 2017)

This in itself has given rise to public policies that have aimed to deal with immigration as well as academic questions to understand empirically different areas related to immigration. Studies on predictors that affect attitudes to immigration are diverse, and many factors have been identified as being important including education level, age, political orientation, gender, economic factors as well as other variables (Dustmann and Preston, 2001; Semyonov et al., 2006; Gorodzeisky, 2011; Economidou et al., 2017). Although this provides an understanding of positive or negative factors that tend to

affect attitudes towards immigration, these studies lack the Human Value dimensions, which are believed by many researchers to be the main driver in forming such attitudes.

There are two main human value concepts, that of Inglehart and Schwartz, which have proven invaluable in explaining different behaviour patterns. I reviewed both of these approaches and chose to use Schwartz's 21 items due to individual approach of measuring human values, whilst additionally they have been part of the ESS survey since 2002 and in all the three countries to be studied.

To date, there are only a few studies that have investigated the relationship between immigration attitudes and human values and in general they show that attitudes towards immigration get shaped by values. There are two main value dimensions, that of Conservation and Universalism (reviewed in the next Chapter) that have been shown as strong predictors in influencing attitudes to immigration particularly, and are assumed to be universal across countries. I will broaden this approach and examine all of Schwartz's 21 items to investigate if this is the case, whether there are differences between countries, and whether the effect of values on attitudes to immigration change with time. To do this I am going to use Cumulative logit models combined with a latent class approach. Cumulative logit models are specialised models for modelling ordinal data, and the latent class approach searches for groups or classes of respondents with similar values, In addition, I have developed and extended the latent class model to investigate whether the latent class definitions or profiles change over time. Such an approach is novel.

In Chapter 2, I will provide an overview of immigration history in the UK, Germany and Sweden. Following on from this, I will then discuss how the idea of majority and minority populations within a country are conceptualised.

I will review the literature on the main human values concepts available and discuss their approaches – that of Inglehart, and that of Schwartz. Finally, I will give more details on how attitudes to immigration have been conceptualised and discussion on the link between human values and attitudes to immigration.

In Chapter 3, I will give an overview of ESS data and their handling approaches including *data collection, sampling, data processing* and *weighting methods*.

In Chapter 4, I will perform an initial data exploration, which will lead to more in-depth analyses in subsequent chapters. One particular goal of this exploratory analysis is to investigate graphically how attitudes to immigration and how each of the 21 human value items have changed from 2002 – 2014 within each country. The chapter starts off with a discussion of data processing issues, and then proceeds to examine the six attitudinal questions over time, human value items over time and linking the selected attitudinal questions for the UK and the human values. It concludes with the selection of attitudinal questions to be taken forward for more detailed analysis, in Chapter 6.

In Chapter 5, I will explore the use of latent class models for the human values items, which is a completely different method for considering the value items in the ESS data. Schwartz has argued that the 21 items form 10 human values, which in turn are nested within four dimensions. The latent class approach in contrast treats each of the 21 items as independent from every other item, and “lets the data speak” in determining which items tend to be associated.

In Chapter 6, I will look at differing factors affecting attitudes to immigration in three countries using different modelling approaches to do this. I will discuss why an ordinal regression modelling approach was chosen for analysis of the data. I take the opportunity to model on two subsets of data; 1) *majority* data for each country and 2) *minority* dataset separately. This focus on modelling the attitudes of the minority population is new. Other studies have either focused on the majority population or have taken the whole sample without disaggregation. It is likely that the models for the minority population will differ substantially from the models for the whole sample for each country, and may also differ across countries.

Finally, in Chapter 7, I will give a general discussion, leading to conclusions on my research questions and will then propose future work in this area.

1.2 Aims and Objectives

The broad aim of this thesis is to investigate the link between attitudes to immigration and human values in three European countries; UK, Germany and Sweden and whether human value indicators and attitudes to immigration change over time using recent survey data from the European Social Survey (ESS). Together with this, country specific effects of wide selection of socio-demographic and political covariates on attitudes towards immigration will be examined.

A secondary aim is to investigate whether such a relationship, if found, differs between countries. A third aim is to investigate whether the relationship differs between the majority or native population of a country and its minority population.

I will focus on the following objectives, written in the form of research questions.

- How do attitudes to immigration differ between selected countries?
- Are attitudes to immigration shaped by human values?
- Which human values are most associated with attitudes to immigration, and does this vary between countries and between the majority and minority populations?
- Which statistical model is best for examining differences between countries?
- What other covariates apart from human value indicators are important in predicting attitudes to immigration, and do these effects vary between countries and between majority and minority populations?
- And finally, are there policy implications that can be drawn from the results of this thesis?

The reason why I have used the human values to predict the attitudes towards immigrants is that human values offer predictive and explanatory power in the analysis of the attitudes, behaviours, opinions and actions. According to some scholars, they represent the foundation which lie behind all human attitudes. The ESS gives an opportunity to have access to data on human values which have a well-validated theoretical background and guidance as to how they could be used in different context

Chapter 2. **Literature Review**

2.1 Introduction

This thesis is concerned with attitudes to immigration and its relationship to socio-demographic variables and to human values. The chapter therefore surveys the literature related to these concepts. First of all in section 2.2 I discuss the dependent variable of attitudes to immigration, and how it has been measured and conceptualised. Section 2.3 then provides an overview of distinct immigration histories in the UK, Germany and Sweden. I use this to justify the need to examine each country separately rather than to treat each country's attitudes to immigration as having similar drivers, as some previous research has done (these previous studies are discussed in Section 2.6).

The Literature review then moves on to discussion of other explanatory variables used in my study. Section 2.4 presents a history of human needs and values, and, following a discussion of early work, it focuses on the more modern conceptualisations of human values, contrasting two major approaches— that of Inglehart, and that of Schwartz, and concluding that the Schwartz method is more appropriate for my needs. Section 2.5 then proceeds to a discussion of ethnicity and how to conceptualise the idea of majority and minority populations within a country. While this may seem straightforward, there are various ways of determining membership of a minority population. One can allow individuals to self-define. Alternatively, one could use a number of socio-demographic variables to define minority; such as country of birth, ethnic group; nationality and/or religion.

Section 2.6 then discusses work that has linked human values and attitudes to immigration. There are only a few published studies in this area and I discuss them critically. In more detail, I identify that most studies have taken a multi-level approach to attitudes to immigration which assume that the same explanatory variables are

appropriate for all countries. Using the material in section 2.3, I will discuss why I feel that this approach is wrong and why examination of each country individually is needed. I also criticise other methodological issues with these papers, and propose a new way forward on analysis.

Finally, Section 2.7 summarises the Chapter, identifying gaps in research and the need for my study.

2.2 Conceptualising attitudes to ethnic minorities and migration

The flow of immigrants in European countries has significantly increased in the last three decades, particularly in developed European areas and this has been highlighted by other researchers (Hooghe et al., 2008), and this has had a great impact on how the host countries perceive such a change. This has influenced many governments of receiving countries to change their policy taking into account the attitudes of their populations as well as economic needs (Triadafilopoulos, 2011; Schlueter et al., 2013; Joppke, 2007). Immigration has become a highly important political and economic issue in Europe, and many countries encounter difficulties in dealing with incoming immigrants because a portion of their population tends to be hostile to immigrants, especially to those coming from a different ethnic background to that of the host country, and also because the incoming population is hostile to integration (Kraal and Vertovec, 2017).

Despite the perceived increase of anti-immigration attitudes over the past decade and the changes on policies against immigration, the number of immigrants in Europe has been increasing, with Western European countries receiving the highest numbers. There has been also a correlation with the increased immigrant population and the success of political parties promoting anti-immigration policies, reflecting changes of attitudes with the size of immigrant population (Anderson, 1996; Lubbers et al., 2002). Many studies have examined attitudes toward immigration between European countries and how they change over time in order to identify the most influential factors (Dustmann and Preston, 2004; Facchini and Mayda, 2009; Mayda, 2006). In general, differences in attitudes are apparent across Europe and it is observed that Northern European populations are more liberal to immigrants, and those living in the South of Europe tend to be more restrictive (Meuleman et al., 2009).

Although empirical evidence has identified respondent characteristics that influence individuals views towards different ethnic minorities, and it fails to identify what forms their perception towards immigrants.

One of the most important factors that form an ideological separation between groups is the identification of what values one might hold in comparison to others, for example, minority population with different perceived values. Human values are an important

tool of driving people's behaviours and attitudes and are seen as main factor influencing how one might perceive or react to others (Allport et al., 1960; Feldman, 2003; Ester et al., 1993; Ester et al., 1994; Kluckhohn, 1951; Rokeach, 1973; Schwartz, 1992a; Williams Jr, 1968).

This consequently leads to the creation of boundaries that identifies between those who belong in the same category such as natives or others classified as out-groups or minorities.

Main characteristics that have identified groups are race, language, religion, citizenship and nationality.

Theories on the formation of attitudes towards out groups have been generally classified into two main categories:

The first is social-psychological; the initial point for the conflict between groups is the need to feel different from out-group members and an instinctive drive for dominance in society, consequently, leading to categorisation of individuals or certain groups that fall outside of own values. Another psychological suggestion argues that the emotional state of the respondent affects the basic processes of perception and the judgments in the formation of attitudes (Sibley and Duckitt, 2009; Christ et al., 2010).

The second group, in contrast takes a rational choice and labour market view (Torgler and Schneider, 2007; Sibley and Duckitt, 2009; Cohrs and Stelzl, 2010) which applies the idea of material and non-material factors that benefit the native population.

Moving on to the categorisation of the attitudes towards minority groups, these can be divided in three groups: cognitive, affective and behavioural (Kourilova and Hrebickova, 2011). Cognitive questions relate to how a respondent thinks of minorities in terms of what people think about their potential behaviour or characteristics, for example, their chances to commit crime, how prepared are they to adapt to the customs of the host country, their intelligence (Luethcke et al., 2011; Burns and Gimpel, 2000). The affective questions capture the prejudice by measuring whether respondents oppose interethnic marriage, or whether they are unwilling to socialise or work with people from different ethnic background (Tolsma et al., 2007). Finally behavioural questions relate to discrimination and are captured by items on the respondent's preferences to limit the population of a certain minority or restrict employment, welfare or citizenship rights for the minority groups (Coenders et al., 2009; Levanon and

Lewin-Epstein, 2010). However, prejudicial attitudes of an individual commonly contain both components, cognitive and affective; however, the weighing of each substance varies in different conditions and on individual basis (Huskinson and Haddock, 2004).

Early work by Allport (1954) outlines the centrality of intimacy, common goals and equal status as optimal methods in reducing contact prejudice and more recent studies by Pettigrew (1997) highlights the importance of direct friendship as a key impacting factor. The beneficial effects of importance of intergroup friendship has also been demonstrated in other studies (Paolini et al., 2004; Levin et al., 2003; Eller and Abrams, 2003). Furthermore, it has also been shown in a meta-analysis study (Pettigrew and Tropp, 2006) that direct contact has more tendency to improve intergroup relations and significantly reduce prejudice towards out-groups as compared to more generic contact; both forms of contact being classed as an affective behaviour. Nevertheless, indirect contact (knowing that intergroup members are in friendship with outgroup individuals), which is seen as cognitive behaviour has also been an area of interest that has also shown to be powerful factor that benefits the acceptance of outgroup members. Whether cognitive or affective approaches, or the combination of both are most important in improving attitudes towards out-groups still requires further understanding, nevertheless, it is clear that contact between groups, weather being direct or generic are essential in producing a more tolerant society.

Specific factors found to have a negative impact on attitudes towards immigration include; qualification level (Coenders and Scheepers, 2003; Hagendoorn et al., 1999; Hainmueller and Hiscox, 2007b), economic factors (Dustmann and Preston, 2004; Fetzer, 2000), religious views (Billiet, 1995; McFarland, 1989), personal or cultural values (Sagiv and Schwartz, 1995; Davidov et al., 2008), perceived threat (Scheepers et al., 2002; Semyonov et al., 2006), right wing political party association or conservative political orientation, the size of immigrant population (Quillian, 1995; Schneider, 2008; Semyonov et al., 2006; Semyonov et al., 2008). Additionally, factors that are associated with attitudes to immigration include age, gender and marital status. Older individuals are less favourable to immigration as they are more likely to support the exclusion of out-groups (Gorodzeisky, 2011). Women tend to be more generally opposed to immigration than men (Citrin et al., 1997; Dustmann and Preston, 2001; Gang et al., 2002; Economidou et al., 2017) and according to Hainmueller and Hiscox,

(2007) this might be due to women feeling more economically threatened by immigrant populations. Married individuals have shown to have slight increase in negative attitudes to immigration (Fertig and Brenner, 2006) and according to Economidou et al., (2017) this might be associated with perceived threat due to safety issues, particularly if the family has children. However, identification of common factors that influence population attitudes across Europe has been difficult as attitudes do not follow the same pattern across countries, with different countries having specific attitudes that can change over time (Meuleman et al., 2009). Negative attitudes may be generally related to the perceived threats of a social nature such as those associated with power and status as well as those of a material nature when the resources are limited such as housing, well-paid jobs and state benefits (Quillian, 1995).

The group conflict literature, in contrast, suggests that not only economic conditions influence attitudes against immigrants but the size of the immigrant groups also plays a strong part. This theory proposes that the increase of the size of a given group of immigrants can create more challenges to host populations due to the perceived competition between the host group and the immigrants on their privileges (*i.e.*, economical resources and the impact that higher sizeable groups might have in the political mobilization). On the other hand, when the economies perform well and the risk of material scarcity is decreased, the competition between host and outgroups becomes less intense, suggesting that better economic situations improve the attitudes towards immigrants (Blalock, 1967; Scheepers et al., 2002; Semyonov et al., 2006). For instance, Quillian (1995) using data from 12 European countries and showed that prejudice is higher towards non-European immigrants in those countries where the gross domestic product (GDP) per capita is low. The nature of the labour market as an economic factor differs between countries depending on their economic development and ratio between skilled host populations relative to immigrants. Skilled individuals are more likely to have positive attitudes towards immigration in areas where the ratio between skilled natives is high compared to immigrants, and in the areas where native population are less skilled relative to immigrant population the perceived threat for labour competition increases, hence, negative attitudes arise (Mayda, 2006). In addition, negative attitudes have also been associated with the perceived threat that immigrants may increase the crime rate of a given country (Herrerros and Criado, 2009). Another important factor shaping people's attitudes is that it is perceived that immigrants may have an economic impact on the welfare system because they are likely

to be at the lower end of the income distribution and more likely to obtain welfare benefits. Studies from the UK have indicated that welfare concerns may even be higher than labour market concerns, making the issue of welfare an important factor that influences overall attitudes towards immigration in most respondent groups (Dustmann and Preston, 2007).

The process of social and economic integration depends on the host country's policies on immigration as well as on the attitudes of the host population (Dustmann and Preston, 2001). However, studies show that the attitudes toward immigration of the receiving country are mainly driven by country specific cultural factors rather than by the economic effects of immigration (Kehrberg, 2007). For instance, the settlement process of immigrants has become a very important political issue in some European countries. Large inflow of minority groups in some EU countries such as Germany may have led to the opposing the new settlements, resulting in very intolerant attitudes and hostile behaviour such as physical violence, death or severe injuries (Krueger and Pischke, 1996). However, this has been shown to be more apparent in specific demographic areas where other indicators also play an important role, for instance, areas with mixed population groups tend to be less hostile to immigration settlements compared to those areas composed of mainly native population. Additionally, increased contact frequency with minorities has been shown to increase tolerance. For instance, in more urban areas, contact is more frequent and the acceptance is higher and in areas with minimal contact, the effect is opposite (Fossett and Kiecolt, 1989).

Negative effect is thought to arise due to perceived threat to identities and native culture that immigrants may cause, according to the conflict group theory (Sherif and Sherif, 1953). However, many other factors have also been thought to be responsible, for example, across countries in Europe there is different acceptability behaviour towards newcomers. Studies have shown that negative attitudes can be driven mostly by cultural dissimilarities between native and newcomers ethnic origin as this increases the fear of loss of national characteristics. There seem to be a positive correlation with the degree of dissimilarities and aversion towards immigrants, and the negative correlation is apparent in those ethnic groups that are largely different in cultural and ethnic backgrounds (Dustmann and Preston, 2007). Dustman and Preston (Dustmann and Preston, 2001) used the British Household Panel Data to measure the social acceptance of ethnic minorities in different aspects of life by comparing whether the respondents are more likely to accept an ethnic minority marriage partner within a close family or

the acceptance of a minority boss (or superior at work). The study revealed that individuals were more likely to accept an ethnic minority boss than a marriage with someone with different ethnic background in their families. Globally, successful integration of immigrant populations has been shown to be economically beneficial, which can lead to economic improvements in both the country of origin and the host country as well as reducing hostility towards immigrants (Van Der Mensbrugge and Roland-Holst, 2009).

In the UK, a recent report by the Searchlight Educational Trust has highlighted six distinct groups which hold different views to each other on the issues of immigration and multiculturalism (Hooghe et al., 2008), and has identified that each of these groups has a distinct age and social class profile. It is shown that in the UK those belonging to Upper and Middle social classes tend to be more open to immigration and think that Britain benefits from immigration. However, the level of support for immigration seems to reduce as the social and the education level decreases (NRS, 2011). The majority of the population in the UK were ambivalent to immigration and this group has been considered as the highest risk because of its tendency to change in either direction depending on the economy and state of the political situation.

It is important that factors influencing the attitudes of the native population towards immigration have been characterised, as they tend to influence domestic policies of countries toward immigration. Attitudes of countries hosting immigrants have changed over the last five decades in different ways and many factors have been thought responsible.

Attitudes towards immigrants and immigration have shifted over time. Different studies show that similar pattern is being followed in most immigration countries. For example, US citizen's preference levels of immigration are very near to European levels. Also, it is notable the shift in opinions of Australians and New Zealanders from less restrictive to moderate restrictiveness in the number of immigration. However, New Zealanders and North Americans harbour more favourable opinions towards immigrants than Europeans and Australians (Wilkes et al., 2008; Facchini and Mayda, 2008; Espenshade and Hempstead, 1996; Cornelius and Rosenblum, 2005; Palmer, 1996). Comparing settler societies with non-settler ones such as Eastern European countries tend to reject the increasing levels of immigrants in their own countries, even though the levels of

immigrants remain very small (Kunovich, 2004; Coenders et al., 2009; Ceobanu and Escandell, 2008).

It is expected that ethnic minorities can affect the social and economic life of dominant groups and also it is expected that both population groups should integrate in order to obtain mutual benefits. The process of integration is a complex phenomenon and has been defined by earlier studies. For instance Lockwood (1964), proposes two main streams of integration; system integration and social integration. The first is associated with functionally of the institutional side of the country where migrants are settled, such as the legal system, economic involvement, *e.g.*, markets and corporate actors. In other hand, social integration can be seen as a process where society is involved by creating links or relationships in the society among individuals, within the system, of the country where they reside. Esser (2000) divides the integration process into four basic forms, which include acculturation, placement, interaction, and identification where all of these factors are interconnected and key parts of social integration. For example, acculturation, by which individuals need to gain an understanding of the society and have the ability to acquire cultural standards and competence to successfully interact with the society, and this, would be essential before they are able to gain a position or placement in society. A process of placement is measured by the position of individuals in the native populations and this can either be a place in the economical, education, professional or becoming a citizen of that country, giving rights to get involved in these processes. Moreover, interaction is also a key factor that helps in creating relationships and networks between individuals; however, these are more likely to occur by individuals who share mutual orientations such as friendships, romantic relations or more generally, becoming a part of a social group. Furthermore, a key to this is identification is the ability of an individual to identify themselves as part of, or sharing common values with, the dominant society.

Northern European countries such Britain, France and Germany have historically had a large influx of immigrants, particularly from the 1950's to the 1970's and each country has had different integration policies towards immigration and have changed these over time. Southern European countries including Italy and Spain have received similarly large groups of immigrant populations in the last decade and have also tried

to deal with quick accumulation of sizable immigrant populations. The experience learned by larger economic countries in terms of integration should be used to derive new long term strategies to integrate immigrants and their descendants socially and in the labour market the host country. Economic integration of immigrants has been measured by comparing their economic achievement with their descendants relative to native populations (Lindley, 2002; Dustmann and Fabbri, 2003; Clark and Drinkwater, 2010; Elliott and Lindley, 2008; Clark and Lindley, 2006). For instance, a recent study by Dustmann and Theodoropoulos (2010) investigates educational attainment and economic performance of ethnic minority immigrants and their children in Britain, in comparison to white British born. They find that ethnic minority immigrants attain higher educational qualification than that of their parent generation, and even superseding that of native white population. Despite this, the study reports that British born minorities on average had a lower probability of employment than their native counterparts.

In Germany, Schmidt (1997) looked at the economic assimilation of labour earnings of both ethnic German migrants and foreign guest-workers using two micro surveys. The first was the ALLBUS micro survey, containing data randomly sampled from the West German population sampled in two years, 1982 and 1990 and which samples only German nationals. The second dataset was taken from the German Socio-Economic Panel (GSOEP) collected in 1984 and it also contained responses from foreign guest-workers. In terms of skills and occupation status, industry of employment and labour earnings the author finds only minor difference between German immigrants and native West German workers. In contrast, foreign guest-workers were mainly concentrated in manual jobs, single labour market segment or industries and in general had relatively lower average labour earnings. However, the author suggests that outcome results from differences in educational endowments of foreign-born migrants relative to German natives, and after education controls were included in the analysis these differences were negligible.

Nevertheless, most studies concentrate on economic assimilation of certain migrant groups at different countries and study their patterns in first-generation or second generation immigrants. Only few studies allow comparisons among different countries and immigrant generations.

Algan et al. (2010) looked at economic integration of immigrants in most economically powerful countries of Europe Germany, France and UK. In particular, they conduct a comparative study which looks at education, earning and employment of first and second generation from different origins and compare their achievements to native populations. The data were extracted from each country of study and included; 1) French Labour Force Survey (FLFS) and covered the years 2005–7, 2) German Microcensus data for the years 2005 and 2006, and 3) British Labour Force Survey (UKLFS) for the period 1993–2007

The length of stay and the knowledge of language are seen as key resource indicator in the social integration of migrants. Additionally, the legal status (whether they have a valid work or residence permit) of the respondents and the full rights of citizenship are important factors as they play an important role in the involvement in political life and making the respondent feel more part of the country where they live (Ramakrishnan and Espenshade, 2001; Loobuyck and Jacobs, 2006)

In summary, a broad range of theories exist. Attitudes towards immigration tend to differ between countries depending on many factors, including; economic development, cultural traditions, political views etc.

Attitudes towards specific situations or objects are portrayed at a given point depending on beliefs that one might have, and such beliefs are said to be directly linked to human values that one might hold. Cross-country surveys such as the World Value Survey and the European Social Survey, since 1981 and 2002 respectively have enabled the study of cultural differences across many countries and have been proved vital in many fields including psychology, socially, philosophy, politics, economics and others.

Research data on minority populations are scarce and studies mainly looked at their integration and assimilation in their respective countries (Berry et al., 2006b). Only few studies have focused on minority group attitudes in general compared to majority populations in host countries. Recent study by Mustafa and Richards (2017) has looked into attitudes towards immigration from the perspective of Muslim Europeans and found that Muslims were more in favour of immigration in general compared to citizens of their member states (Mustafa and Richards, 2019).

Staerke et al., (2005) used ISSP survey data from 11 countries to analyse levels of xenophobia and ethnic and national identification of ethnic majorities and minorities and found that amongst majorities there was higher levels of national identification as well as higher xenophobia against immigrants compared to minority populations (Staerklé et al., 2005).

However, no studies have looked at the differences in human value orientations between minority and majority populations cross-nationally. Given that basic human values form the basis where beliefs and attitudes are created, measuring them directly would help to better understand the basic differences or similarities between groups. This would further give insights into whether closeness of values between minority and majority populations, in a given country, would increase the likelihood of social cohesion and if increased distance in values signifies dissimilarities. Furthermore cross-country comparison of human values patterns would enable to identify any county-specific patterns that effect integration of minority groups.

This section has focused on the economic and social drivers affecting attitudes to immigration; the next section focuses more specifically on attitudes to immigration and the importance of human values in explaining attitudes.

2.3 Immigration in Europe

Various world events and wars have influenced immigration, with every country having its own history. I will examine the history of three countries – the UK, with its post-colonial history in south Asia, Africa and the Caribbean; Germany, with its need for *gastarbeiter* leading to substantial Turkish immigration; and Sweden, with its more most progressive immigration policies, such as relatively free asylum policy. I will also give an overview of immigration history in UK, Sweden and Germany

Due to increasing global immigration flows, developed countries of Western Europe are experiencing increasing number of immigrants coming from both EU and non-EU countries, and as a result is becoming more demographically multicultural (Pettigrew, 1998). In the EU, Germany and UK have been the top two countries with the highest immigration inflow and Sweden lying within the top ten countries with the highest number of immigrants. By 2016, OECD data has identified that permanent immigration inflows in Western European countries were the highest in Germany (DEU), followed by UK (GBR), whereas Sweden (SWE) was ranked 7th (Table 2a).

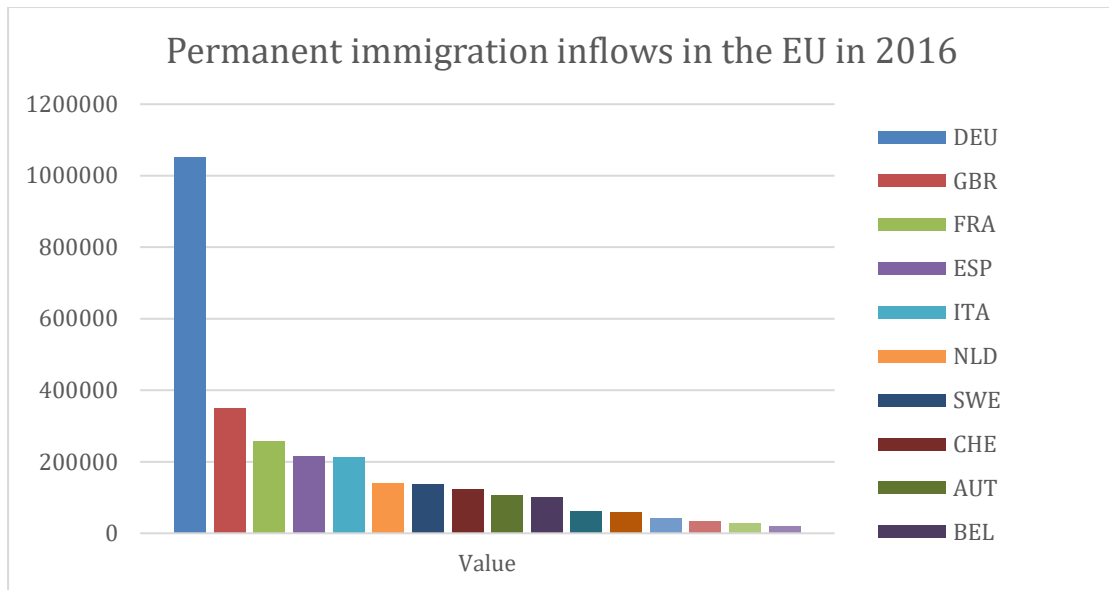


Table 2a. Permanent immigration flow in EU countries (OECD, 2016)

According to Eurostat immigration statistics (EUROSTAT, 2017) in 2015 alone, approximately 4.7 million people immigrated to one of the EU states where 2.4 million of immigrants were from outside Europe and 1.4 million with a citizenship of one of the European member states.

Germany has recorded the highest number of immigrants received in 2015 (1543.8 thousand), followed by the UK (631.5 thousand). A steady increase has also been noted in Sweden reaching 134.2 thousand in 2015 (EUROSTAT, 2016). According to more recent OECD data, the UK, Germany and Sweden have now a high percentage of foreign-born population in the last decade (2002 -2013) with a general level of more than 10% of the total population. By 2013, Sweden contained the highest fraction of foreign-born immigrant populations reaching 15.9%, followed by Germany (DE) 12.7% and the UK with 12.26% [Figure 2b.(OECD, 2017)]. These figures fail to take account of the recent migration crisis in 2016, which will have increased the German percentage in that year.

In contrast, the total number of immigrants varies significantly between countries with Germany hosting the highest number followed by UK and Sweden (Figure 2a.)

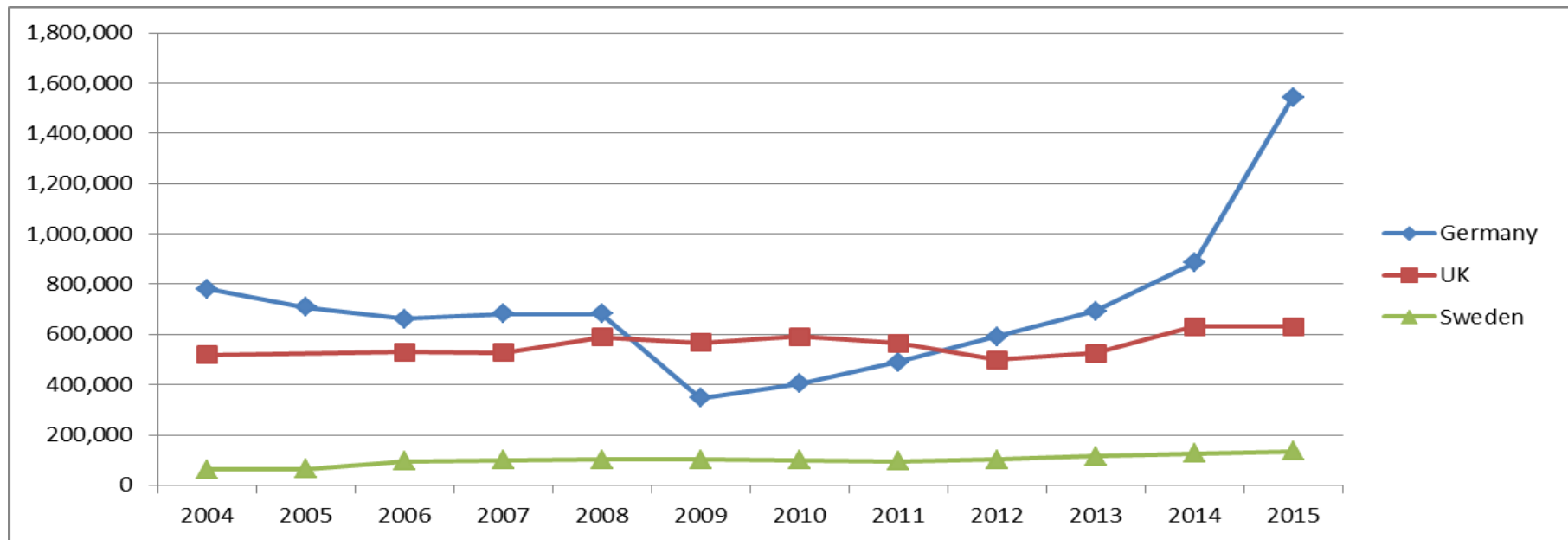


Figure 2a. Immigrant population arrival levels (2004-2015) in United Kingdom (UK), Germany (DE) and Sweden (SWE) [source: (EUROSTAT, 2016)]

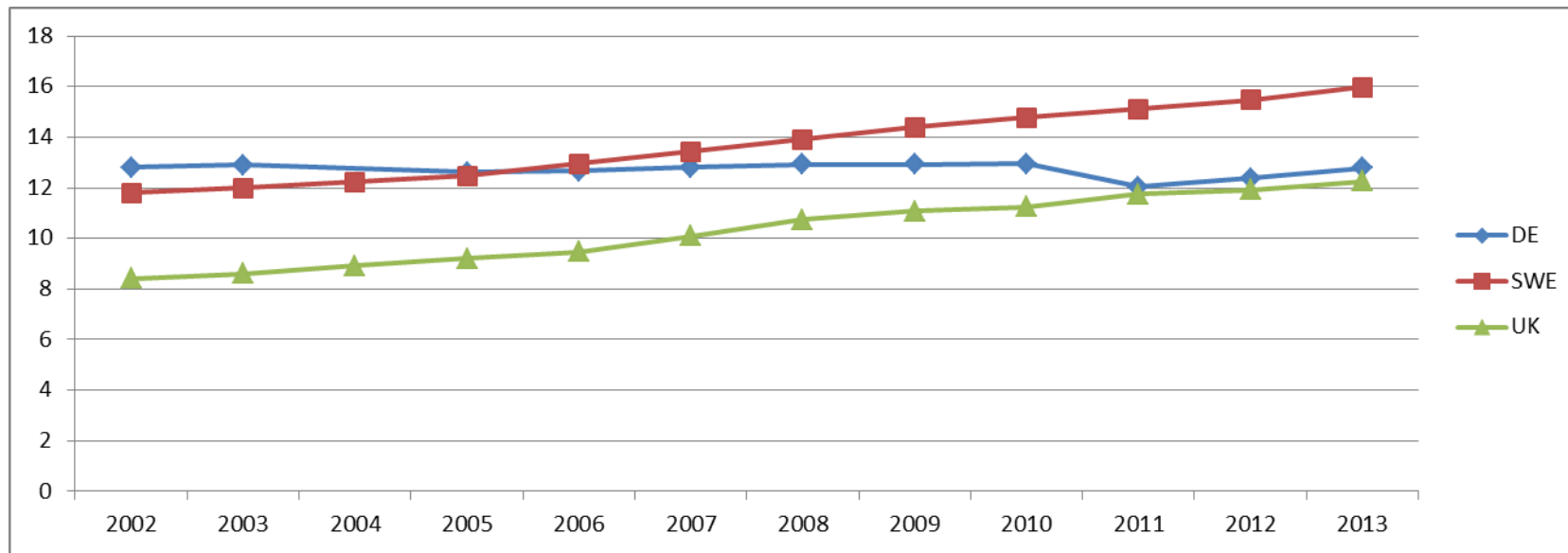


Figure 2b. Percentage of population that is foreign-born (2002 – 2013) in United Kingdom (UK), Germany (DE) and Sweden (SWE) [source:(OECD, 2017)]

The fate of immigrants in the receiving country is very much dependent on policies of immigration, which determines the number of immigrants to be allowed into the country, but also their lives are affected by integration strategies that set out what to do with migrants once they have arrived in the host country. These policies tend to be different between countries and also change through time depending either on conflict outside or on the economic needs of the receiving country. For instance, UK, France, Germany and the Netherlands have experienced large flow of immigrants after the Second World War, but often these countries have attracted immigrant workers for economic needs. France, for example, received around 1 million immigrants after the Algerian wars of independence in 1962, whereas UK had around 30,000 Asian refugees in 1972 from East Africa and around 20,000 as a result of the Kosova war in 1999. This added to the substantial economic migration from India, Pakistan and the Caribbean in the 1960s and 1970s because of labour shortages. Germany was on the receiving end of more than 1 million refugees following the Balkan wars in the 1990's. Due to the economic boom in 1950-1960s high number of Turkish entered Germany and to a lesser extent other developed European countries.

Immigrants from different origins were recruited in different developed countries depending on historical events, for example, UK and France mainly attracted individuals from ex-colonies in Africa and India. France further recruited those with skills from Spain and Portugal, and Germany recruited immigrants from Southern Europe and Turkey.

After the World War Two (WW2) Sweden experienced greater volume of immigration than the neighbouring countries. The establishment of Inter-Nordic Market in 1954 movement of people across Nordic countries constituted to the larger immigration populations. Increased immigration also occurred as a result of removal of passport control in for Nordic Citizens in 1958. During the 90's Sweden started to receive a large number of immigrants mainly due to war torn countries as a result of the start of Yugoslavia break up, where more than 100,000 people mainly from Bosnia located in Sweden. This was followed by smaller number of around 3,500 from Kosovo. According to United Nations Refugee Agency (UNHCR) between 2010 - 2014 there were more than 235,000 refugees mainly from Syria, Afghanistan and Iraq who applied for asylum in Sweden (UNHCR, 2014).

Until 2004 immigration was mainly due to extended family formation or asylum seekers but labour immigration has become a large part of Swedish immigration after 2004 due to European Union extension. A limited number of labour immigrants arrived in Sweden from Finland and Yugoslavia until the 1970's.

From the 1970's Sweden's strategy has been to allow only two types of immigration: labour immigration, which were *temporary workers*, permitted if there was immediate shortage of Swedish labour and secondly offering *permanent settlement* to immigrants with highly specialised occupation (Westin, 2000).

On December 15th 2008 the Swedish government passed a new law in regards to labour migration in Sweden from outside the EU/EES in order to contribute to current and future labour market needs and a more culture diverse and open society (Justitiedepartementet, 2008). The current policy has become liberal where employers can recruit anyone to any occupation as long as the positions are advertised and employment is offered on a contractual basis. In addition, an appropriate salary for the specific profession should be set according to the collective agreement of practice within the appropriate professional sector. Employees must also earn at least the effective minimum wage required to make a living by the Swedish standards. Although Sweden does not have a minimum wage policy but trade unions are given the opportunity to provide opinion of wages required for specific occupation, and for example in 2011 minimum wage was recommended at SEK 13,000/month (circa €1,420) (OECD, 2011).

In terms of egalitarian strategies, UK was one of the first country to exhibit a multicultural approach toward immigrant populations in the 1960's followed by Norway in 1980s. However, both countries shifted their policy approaches in later years as it was thought that the earlier multicultural strategy was creating segregation and lack of integration because some communities chose not to integrate.

However, this has changed recently and an *inter-cultural policy* to mix populations and target assimilation type of integration moderately has taken place (Musterd, 2005). In UK, multiculturalism was a dominant policy from the 1980s, especially in relation to education, health and social services. In the last decade the orientation has shifted from the idea of multiculturalism to partially assimilating policies (Schuster and Solomos, 2004).

Riots in UK in 1980, and failure of involvement of the immigration in economic sectors and high rates in benefits claims in Norway probably lead to more aggressive state involvement approaches to increase integration in a variety of social, economic and cultural sectors (Kraal and Vertovec, 2017).

In contrast, Germany's strategy to dealing with immigration was primarily characterised with a temporary approach known as *gastarbeiter* (guest-worker) model, which did not provide state protection of these workers in the same manner to their citizens. However, it failed to anticipate that often most who were recruited for work reasons may become permanent settlers after some time and this effects their integration. Tendencies for permanent stay increased as works used their rights to have their families once immigrated. Similar issues are also noted in other European countries with similar temporarily solution and including Austria, Belgium, Netherlands (Castle 1984). Sweden, Denmark, Norway and Finland had similar programs referred as *arbetskraftsinvandring* (workforce- immigration).

There are two main immigration flows in the last century in Germany where the first phase occurred in the mid-1950 and the second wave in during late 1980s and early 1990s. During 1950 Germany experienced strong economic growth and needed manpower which lead to seeking active requirement of workers from foreign countries including Turkey, Yugoslavia, Greece, Italy, Spain and Portugal. The immigrant population in the second wave were referred as *Aussiedler* - ethnic German immigrants, and entered Germany due to population movements resulting from the break of the Soviet Union in addition to immigrants coming from Eastern European countries such as Poland and Yugoslavia as a result of political instability in that region (Bauer et al. 2005).

According to the German Federal Statistical Office the definition of "people with a migrant background" are all those that migrated to the Federal Republic of Germany after 1949, together with foreign nationals that were born in Germany and all those German nationals that have at least one parent born abroad or were born in Germany as a foreign national.

In 2005 Germany has enhanced new immigration law, and with this Federal Republic of Germany declared itself as a country of immigration and where integration of the immigrants is a legal duty (*Gesetz zur Steuerung und Begrenzung der Zuwanderung und zur Regelung des Aufenthalts und der Integration von Unionsburgern und Ausländern*).

Relating to citizenship, Germany offered this right only to their descendants regardless of their location (known as *jus sanguinis* system). For instance, Volga Germans who have been located in Russia since the 18th century were given immediate citizenship rights even though their social situation was similar to other immigrants. In contrast, it was made extremely difficult for those with no German parents even those of second or subsequent generation that were settled in Germany. This was the case for children of Turkish immigrants, who, although born in Germany, were not granted rights of citizenship. Until recently, Germany had maintained that they were not an immigration country but this view has formally changed due to the Sussmuth commission (Commission, 2001) that highlighted the need for labour migration for economic development and the need to integrate migrants. In the last few years Germany has tried to shift from the *jus sanguinis* to that of the *jus soli* system which was followed by the UK. Since 2000, those born in Germany are granted automatic citizenship rights if their parents have been legally in the country for the last 8 years, regardless of their origin. Similarly, non-Germans immigrants that were previously required to be legally in the country for a minimum of 15 years before naturalisation was offered, had this wait reduced to only 8 years.

Within the European Union, new treaties have tried to implement common political strategies on all member states in order to develop a European policy on immigration with its aims to develop integration policies that would ensure fair treatment of third country nationals and giving equal rights and obligation to EU nationals. The European Commission has strongly highlighted the impact of immigration policies on the receiving country and on immigrants themselves.

Thus, for over half a century, there has been a constant attention on the movements of the populations across borders and the measures that have been taken to control and manage such change.

To summarise, each country is following its own route to dealing with immigration and seem to come together in more integrative policies in the 21st century.

We choose in this thesis to examine three European countries with historically different immigration backgrounds, which have the highest rates of immigration in Europe – UK, Germany and Sweden.

2.4 Human Needs and Values

2.4.1 Conceptualising human values

According to Schwartz (1992b) basic human needs are the main drivers of human values and all humans have three basic universal needs: 1) biological, 2) social interaction and communication and 3) survival and welfare means. However, what constitute as basic human needs is still debatable in the literature and scholars have proposed a number of theories.

Given that, human needs are seen as main drives of human value I will give a brief introduction of human needs, how different theories have evolved over time in literature and finally their proposed association with human values. The chapter starts with Murrays theory of human needs in late 30's, followed by Maslow's nested list of needs in late 70's, followed by self-determination theory introduced by Deci and Ryan in 1980 and finally by more recent approach by Pitman and Zeigler (2007).

In 1938 Murray suggested a long list of 20 manifested human needs (Murray, 1938) and these included; Abasement, Aggression, Autonomy, Deference, Dominance, Achievement, Sex, Sentience, Exhibition, Play, Affiliation, Rejection, Succorance, Nurturance, Infavoidance, Defendance, Counteraction, Harm avoidance, Order and Understanding. Nevertheless, Murray himself realised limitations of this approach as such the list of human needs seemed to increase constantly and made an attempt to reduce and class these needs to latent groups of nine, which constituted: 1) Need to Dominate, 2) Need to Achieve, 3) Need for Sensual Enjoyment, 4) Need for Affiliation, 5) Need to Nurture, 6) Need for Self-Regard, 7) Need for Safety, 8) Need for Order and 9) Need for Understanding. These were then further reduced into four main categories of the basic reactions systems. These were: 1] Raise Status, 2] Conserve and Defence status, 3] Affiliate and Cooperate with, Defend Allied Objects, and 4] Reject, Renounce, Attack Disliked Hostile Objects. More recent theories have presented an approach that provided a transition from a long list of needs into a short set of motives that can explain specific needs. Maslow et al. (1970) suggested a theory that uses a nested approach as means to more concisely organise needs, and he defines them as "... nests of boxes in which one box contains three others, and in which of these three contains ten others, and in which each of these ten contains fifty others, and so on" Maslow (1975). And using such approaches, for instance, Murray's list of needs could be nested as 20, 9, or 4. Building on this earlier work,

six main theories on human needs have now been recognised that have generated empirical research (Pittman and Zeigler, 2007) and these are schematically shown in Figure 2c, which include: 1] Maslow's hierarchy of needs (Maslow, 1943); 2] Attachment theory (Bowlby, 1969), 3] Self-determination theory (Deci and Ryan, 2000; Deci, 1980); 4] Cognitive-experiential self-theory (Kirkpatrick and Epstein, 1992); 5] Core social motives theory (Stevens and Fiske, 1995; Fiske, 2004) and 6] Terror management theory (Greenberg et al., 1997).

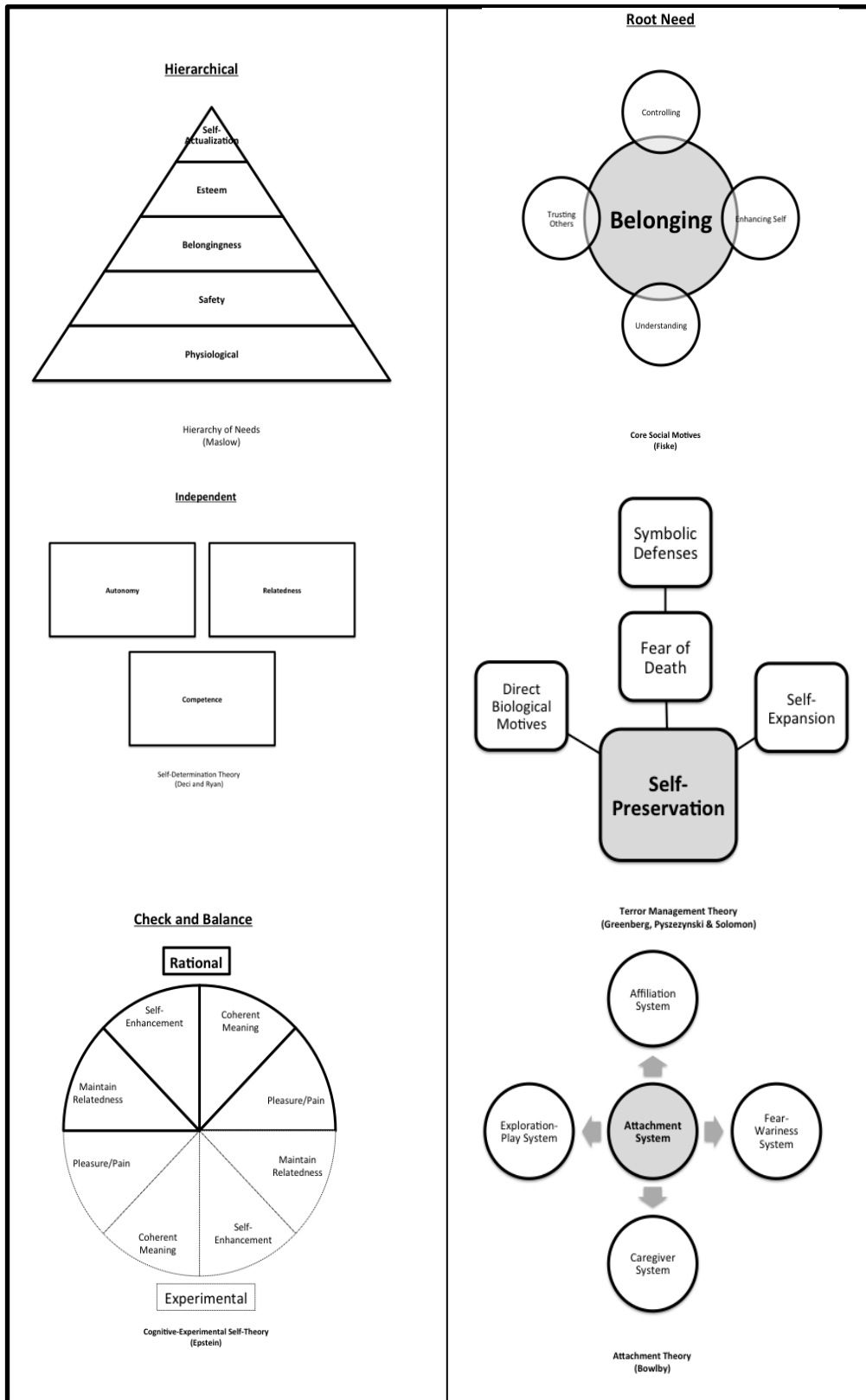


Figure 2c. Schematic representation of the six theories of basic human needs (Pittman and Zeigler, 2007)

These theories differ in the method of structure of basic human needs and are compared on the model they propose and such include the hierarchical model, root primary need, systems check and balances and set of independent needs. Maslow's needs have a hierarchical structure of five levels, where it is assumed that some needs are fundamental and must be fulfilled before others, which form a pyramid structure with most important needs as the base. For instance, Physiological and Safety are fundamental for existence and must be satisfied before the need of Belongingness, Esteem and Self-Actualisation. According to Pittman and Zeigler (2007) Maslow's theory has been most influential in organisational psychology and other related fields as a model of motivation but itself has not generated significant empirical research. One exception is the Malawian Assessment Survey (MAS) which was formulated by Williams and Page (1989) using 195 Likert-type items designed to measure three levels of Maslow's hierarchical needs in adult and college populations students; Safety-Self Concept, Belonging Self Concept and Esteem Self Concept.

The Self-Determination Theory proposed by Edward L. Deci (Deci et al., 1991; Deci, 1980; Deci and Ryan, 2000) realises three basic human needs, which are independent from each other, but all must be satisfied for well-being. Deci and Ryan (2000) hypothesis that in order for human beings to reach an optimal health development the need for *autonomy, relatedness or competence* must all be satisfied and as highlighted: “ In short, physiologic health requires satisfaction of all these needs; one or two are not enough” (pg. 229). The theory points out that all of these must be together satisfied to fulfil human needs.

The Cognitive-experimental self-theory (CEST) proposed by Seymour Epstein (Pacini and Epstein, 1999; Kirkpatrick and Epstein, 1992; Epstein, 1993; Epstein, 1994) proposes that the nature of human needs is psychodynamic and that there are two systems, *rational* and *experimental* which act as functions of schemas processing information for individual to adapt the surroundings. The systems combine for the production of a single act but they function by a set of different rules. The experimental system is mainly governed by emotions and functions automatically via non-conscious pathway, organising experience and influencing behaviour. In contrast, the rational system uses a conscious and an affect path free of emotional effect and is based on socially mediated knowledge. The theory assumes four fundamental human needs: 1) to maximise pleasure and minimize pain; 2) to maintain a stable, coherent conceptual system to organise experiences; 3) to maintain a relatedness to others, and 4) to maintain positive sense of self-esteem. The CEST theory assumes that these four main needs function via a process

which checks and balances actions of rational and experimental pathways to keep behaviours within adaptive limits. The theory is different from others in the sense that there is not a root needs that needs to be first satisfied, no hierarchal structures giving priority to one need, and the whole systems works together and it is dependent by balances between rational and emotional levels. The three other human needs theories have a *Root Need Structure*, assuming that humans have one rooted need which is either more important than others, one that others are related, or one that other needs are derived from.

The Core Social Motives Theory (Stevens and Fiske, 1995; Fiske, 2004; Fiske, 2009) proposes five human need motives: *belonging, understanding, controlling, enhancing self* and *trusting* with belonging being identified as a root need and the others facilitating and supporting this root need. According to Fiske (2004) “Core social motives describe fundamental, underlining physiological processes that impel people’s thinking feelings, and behaving in situations involving other people.” The basic assumption of the theory is that evolution processes have formed human characteristics, where belonging to social groups is essential to individual’s survival, and the needs are particularly developed in a social setting involving adaptations in dealing with other people or groups.

Attachment Theory (Bowlby, 1969), as the name suggests, identifies the attachment system as central to survival. Although Bowlby did is not directly classed the theory principles as relating to human need, the motives emphasise a defence system based on the apprehension of mortality rather than needs themselves. The theory specifies an attachment system as the core of organising principles with control mechanisms that aim to prevent any deviations and deprivations from the central attachment via four main motives, which may be classed as needs. The attachment theory includes *Caregiver System, Affiliation System, Fear Wariness System and Exploration System*. According to Bowlby (1969) the systems are linked to the survival needs of nurturance and security. These systems are not directly defined as needs but are need related orientations that are strategically carried out to preserve mortality. The *Terror Management Theory* (TMT) (Goldenberg et al., 2000; Greenberg et al., 1997) primarily assumes that *self-preservation* is the root need for other needs including *Direct Biological Motives* based on tissue deficits (food, water, temperature), *Fear of Death* that is further expressed by *Symbolic Defences*, and *Self Expansion Needs*. As in Attachment theory the TMT survival is identified as the end state goal as the main drivers of the needs. Knowledge of inevitable death creates a unique human need to deal with this fact that aims for self-

preservation due to fear of death via defensive motives such as persuade of self-esteem and faith in the cultural worldview. Similarly the Self-Expansion motives are directly related to the root need for survival. Given that there are many of different theories on human needs, attempts have been made to reduce this to even fewer dimensions. Pittman and Zeigler (2007) broadly classed human needs into three main processes of needs where most of theories can be fitted to: *Basic/Biological level processes*, *Individual-Level Processes* and *Social-Level Processes*.

I have focused on needs as work by early researchers has provided the bases for understanding and defining human values. Early researchers thought that human values and needs were interconnected and related, and they have been used interchangeable in early literature without clear distinction. For example, Maslow (1959; 1954) used both terms as equivalent and interchangeable. Super and Šverko (1995) suggests that values are formed to satisfy human needs and he defines values as “refinement of needs through interaction with the environment, including socialization.” Super and Šverko believed that through socialisation people set objectives or goals (i.e., values) that aim to satisfy their needs. Rokeach (1973) also saw needs as a result of the interaction with environment but also viewed needs as biologically derived (e.g., tissue deficits for survival) and values as resulting from cognitive representations of the needs. As a result values are objectively used to satisfy needs through interest activities. Super and Šverko defined this relationship as need-value-interest; for example, valuing material things might lead people to seek wealth and this might be done through an interest such as highly paid profession at the individual level. On the other hand an example, of a societal need would be the need for immigration, particularly in the developed European countries due to an aging population together with lower fertility rates, mortality and economic activity (Coleman, 2006). Despite this the value of nationalism overrides this and the value becomes more important than the need (Semyonov et al., 2006; Quillian, 1995; Schneider, 2008) .

According to Williams (1979) values represent what is important to human beings and all human beings develop norms and values. Kluckhohn (1951) was one of the first researchers to critically examine the concept of human values. Kluckhohn (1951; 1954) emphasises that without values the functioning of social system could not continue to achieve group goals and he continues “...individuals could not get what they want and need from other individuals in personal and emotional terms, nor could they feel within themselves a requisite measure of order and unified purpose.” (Kluckhohn, 1954). However, the concept of human values was

originally defined in physiological and sociological studies by Perry (1926) as a philosophical concept. Later, more concrete meaning of values was given by Allport et al., (1951) and he links values to ordinary activities such as reading newspapers, watching movies and voting.

Since the 1950's, the understanding and better definition of what human values are has evolved and a general consensus has gradually been formed (Braithwaite et al., 1991). Human values are defined as abstract principles that have the power to drive people's behaviours towards different specific objects or situations, for example, how they perceive the behaviour of others such as minority populations (Schwartz, 1992b; Schwartz, 1994).

A number of measurable basic human values concepts has been apparent in the literature and changed over time. Scholars have generally emphasised that values are internal states: principles (Kluckhohn and Strodtbeck, 1961; Schwartz, 1994); beliefs (Rokeach, 1973; Schwartz and Bilsky, 1990); schemas (Feather, 1975); criteria (Williams, 1979; Schwartz, 1992b; Hechter, 1993); standards (Kohn and Schooler, 1983); tendencies (Hofstede, 1980); goals (Schwartz, 1994); or cognitions (Verplanken and Holland, 2002). Table 2b. highlights various definitions of human values as well as a grouping of similarities and differences in terms between authors.

Human Values defined as:	Authors	Definition
Principles	(Kluckhohn, 1954) (Kluckhohn and Strodtbeck, 1961)	A concept of the desirable, which influences the selection from available modes, means, and ends of action. Value orientations are complex but definitely patterned (rank-ordered) principles.
Beliefs	(Rokeach, 1973) (Schwartz and Bilsky, 1990)	‘An enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence.’ Concepts or beliefs pertaining to desirable end-states or behaviours, transcending specific situations, guiding selection or evaluation of behaviours and events, and ordered by relative importance.
Goals	(Schwartz, 1994)	Values are desirable goals that guide principles of people’s lives.
Standards	(Kohn and Schooler, 1983)	The standards of desirability.
Tendencies	(Hofstede, 1980)	Broad tendencies to prefer certain states of affairs over others.
Schemas	(Feather, 1975)	Abstract structures or schemas that can be represented as associative networks, with each central value linked to a set of attitudes and beliefs.
Cognitions	(Verplanken and Holland, 2002)	Cognitions that may define a situation, elicit goals, and guide action.
Criteria	(Schwartz, 1992b; Williams, 1979; Hechter, 1993)	The criteria of desirability.
Summarising	(Kahle, 1996)	Values summarise previous experience and provide a strategy for dealing with new choices
Influence behavior	(Lewin, 1952)	Values influence behavior but have not the character of a goal (i.e., of a force field). For example, the individual does not try to "reach" the value of fairness, but fairness is "guiding" his behaviour (p.41).
Dominating the life goals	(Allport, 1961)	Value priorities are the "dominating force in life" (p. 543) because they directed all of a person’s activity toward their realization.

Table 2b. Summary of various definitions of human values by different scholars.

The general consensus on the nature of human values is that they are abstract social cognitions used to store and guide general responses to classes of stimuli. Hechter et al. (1993) suggests that values increase individual adaptive fitness, because behavior responses do not have to be specific for each environment and situation separately.

Although values may be defined differently by different scholars (as for example, standards, principles, schemas, tendencies etc.,) it is generally assumed that they are responsible for guiding responsive actions to specific events or environment, via, cognitive system in order to reach an end goal. This may imply that the end goal is tightly connected to the nature of human survival which is achieved by satisfying needs through a calculated system (cognitive and experience) which through evolution becomes as a standard (value) that has shown to work and can evolve to adapt to situations.

In the next section I will highlight how human values have been conceptualized and the two main approaches that have generated most empirical research, that of 1) Ronald Inglehart, which has been part of the World Value Survey since 1981 and 2) Shalom Schwartz's human value dimensions that has now become core of the European Social Survey since 2002. I will also give a brief introduction to other value theories that have encouraged some research as well as their interesting theoretical approaches. Finally, I will compare Schwartz's and Inglehart's human value theories and challenges in their measurements.

2.4.2 Schwartz's conceptualization of human values

According to Schwartz (Schwartz, 1992b; Schwartz, 1994; Devos et al., 2002) the basic human values are defined as beliefs, desirable goals transcending specific actions and situations, serving as standard or criteria. They are ordered by importance relative to one another, and the relative importance of the set of relevant values guides action. Additionally, Schwartz highlights that the ten basic motivational human values are related to each other, where, one value can serve as a basis for altering the other value in a similar direction or they counteract each other creating an opposite effect. The ten values consist of power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security. The *Power* value is associated with one's aim to achieve social status and prestige, control or dominance over people and resources. Similarly, *Achievement* relates to personal success through demonstrating competence according to social standards, for example, aiming to be a successful, capable, ambitious and influential person. *Universalism*, in contrast, is linked to understanding, appreciation, tolerance and protection for the welfare of all people and for nature (e.g., social justice, equality and protecting the environment) - this is similar to the post-materialist concept of Inglehart. *Benevolence* is concerned with preservation and enhancement of the welfare of people with whom one is in frequent personal contact, and such traits include being helpful, honest, forgiving, loyal and responsible. *Hedonism* is associated with those seeking pleasure and sensuous gratification for oneself (e.g., enjoying life and self-indulgence). *Stimulation* is concerned with seeking excitement, novelty, and challenge in life and is associated with those who are daring and aiming a varied and an exciting life. In addition, *Self-direction* is also related to those who seek independent thought and choice, creating and exploring actions (e.g., creativity, freedom, independent, curious and choosing one's own goals). The *Tradition* value represents one's respect, commitment and acceptance of the customs and ideas such as traditional culture or religion (e.g., humble, accepting my portion in life, devout, respect for tradition and moderate). Similarly, *Conformity*, restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms such as politeness, obedient, self-discipline, honouring parents and elders. Finally, the *Security* value is concerned with overall safety, harmony and stability of society, of relationships, and of self and such includes, for instance, family security, national security, social order, cleanliness and reciprocation of favours.

It should be understood that values may be consequential, they might have consequential political, social or economic effects and may be interconnected with sets of other values (Schwartz, 2012). For instance, the 'pursuit of achievement' value may be compatible with the pursuit of power values as for example, seeking personal achievement would strengthen one's aim to increase social position and power over others in society. In contrast, Schwartz highlights that seeking personal achievement may conflict with benevolence values, as seeking for self-success can obstruct the actions aimed to enhance the welfare of others who need help. Another example includes the relationship between stimulation values vs. traditional values vs. conformity values: seeking novelty and change (stimulation) are likely to be contradictory to the traditional values, which are less willing to change. However, pursuing tradition is compatible with the pursuit of conformity, as both values tend to motivate submissive actions to external expectations.

The theory suggests an integrated structure of ten basic values and it is the conflict or congruities among all these which provides a basis for their measurement (Table 2c).

Human value types and the motivational emphasis	
<p>POWER indexed items 2 &17</p> <p>Social status and prestige, control or dominance over people and resources. (social power, authority, wealth, preserving my public image)</p> <p>Important to be rich, have money and expensive things Important to get respect from others</p>	<p>UNIVERSALISM indexed items 3,8 &19</p> <p>Understanding, appreciation, tolerance and protection for the welfare of all people and for nature. (broadminded, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment)</p> <p>Important that people are treated equally and have equal opportunities Important to understand different people Important to care for nature and environment</p>
<p>ACHIEVEMENT indexed items 4&13</p> <p>Personal success through demonstrating competence according to social standards. (successful, capable, ambitious, influential)</p> <p>Important to be successful and that people recognize achievements Important to show abilities and be admired</p>	<p>BENEVOLENCE indexed items 12 &18</p> <p>Preservation and enhancement of the welfare of people with whom one is in frequent personal contact. (helpful, honest, forgiving, loyal, responsible)</p> <p>Important to help people and care for others well-being Important to be loyal to friends and devote to people close</p>
<p>HEDONISM - indexed items 10&21</p> <p>Pleasure and sensuous gratification for oneself. (pleasure, enjoying life, self-indulgence)</p> <p>Important to have a good time Important to seek fun and things that give pleasure</p>	<p>TRADITION indexed items 9 &20</p> <p>Respect, commitment and acceptance of the customs and ideas that traditional culture or religion provide the self. (humble, accepting my portion in life, devout, respect for tradition, moderate)</p> <p>Important to be humble and modest, not draw attention Important to follow traditions and customs</p>
<p>STIMULATION indexed items 6&15</p> <p>Excitement, novelty, and challenge in life. (daring, a varied life, an exciting life)</p> <p>Important to try new and different things in life Important to seek adventures and have an exciting life</p>	<p>CONFORMITY - indexed items 7 &16</p> <p>Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms. (politeness, obedient, self-discipline, honoring parents and elders)</p> <p>Important to do what is told and follow rules Important to behave properly</p>
<p>SELF-DIRECTION indexed items 1&11</p> <p>Independent thought and action-choosing, creating, exploring. (creativity, freedom, independent, curious, choosing own goals)</p> <p>Important to think new ideas and being creative Important to make own decisions and be free</p>	<p>SECURITY indexed items 5&14</p> <p>Safety, harmony and stability of society, of relationships, and of self. (family security, national security, social order, clean, reciprocation of favours)</p> <p>Important to live in secure and safe surroundings Important that government is strong and ensures safety</p>

Table 2c. Human value items and their motivational goals according to Schwartz's theory of basic human values (Schwartz, 2012)

Schwartz summarises human values into two distinct orthogonal dimensions consisting of four main opposing effects, which can be represented in a circle (Figure 2d). One dimension is associated with self-transcendence vs. self-enhancements. For example, universalism and benevolence opposes power and personal achievement. The former is associated with wellbeing and interest of the others whereas the latter is concerned with self-interest. On the other dimension, an opposing effect is created between openness to change vs. conservativeness. In this dimension, self-direction and stimulation oppose security, conformity and tradition values.

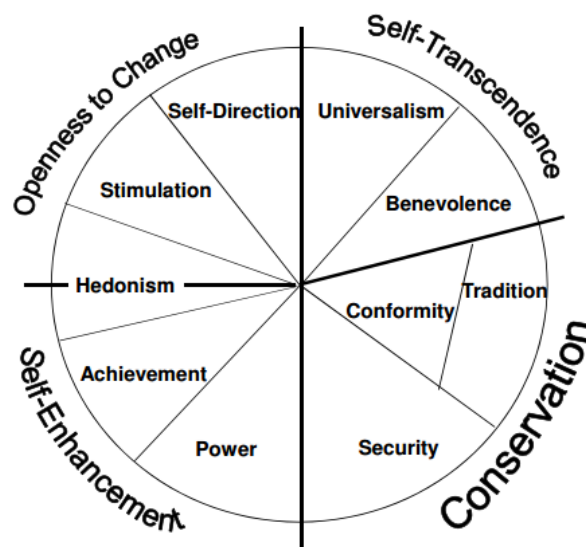


Figure 2d. Theoretical model of relations among ten motivational types of human values (Schwartz, 2012).

The theory proposes that these motivations constitute an overarching universal principle that organises value systems and as such provides a comprehensive approach to describe human values and a method of measuring social attributes. Universally people fall within these core values and only differ based on the priorities that they assign to them. It is also emphasised that these core values can be used to measure behaviour, attitudes, opinion, social experience and personality. The ten human value factors are operationalised or measured through a collection of survey questions. These questions ask respondents to say whether a particular trait is very much like them or not at all like them, measured on a six point scale. Schwartz’s approach to human values has been implemented in the European Social Survey (ESS). Schwartz’s original Portrait Values Questionnaire (PVQ) framework has been applied in the ESS to measure the ten human values by portraying the respondent’s goals, aspirations or wishes. This form of

measuring enabled simplifying the nature of the questions and increased the quality of the responses. This method of measuring aims to explicitly identify the respondent's values indirectly by capturing their goals and wishes they pursue. For example, respondents that self-report themselves on this question "It is important to him to be rich" implies that he wants to have lot of money and expensive things. According to Schwartz (1992b) this describes a person who cherishes *power* values.

ESS has allocated a total of 21 items aimed at measuring the ten basic human values, based on Schwartz's theory on human values. For each human value, two items are used, except for the Universalism value for which three items are allocated, due to its more complex components i.e., understanding, concern for nature, concern for society (Schwartz, 2012). Items were generally chosen based on the following criteria:

- Items that emerged consistently together with the other items intended to measure the same value in past studies
- Items that could provide coverage of the different aspects of the motivational goal that characterises each value.

Schwartz suggested that the ten motivational human values can be assessed by a reduced bank of 21 items (Table 2c). Each item asks the respondent to answer on a six point scale as to whether a statement is: 1. "very much like me", 2. "like me", 3. "somewhat like me", 4. "a little like me", 5. "not like me" and 6. "not like me at all" .

Given that the answers are measured in a six point scale, there is a room for response bias amongst the respondents due to the way of responding. For example, some respondents find everything important; others, use the middle points of the scale (i.e., somewhat like me and a little like me) and refuse to use the extreme options, whereas for some extreme points are their quickest choice.

This nature of responses brings the need of controlling mechanisms to ensure more accurate representation of value priorities between respondents and countries as well as correlating values with other variables. Methods have been suggested to correct responses and this has been provided as a guideline by ESS, which include standardisation approaches that consist of

either individual or group based standardisation as well as applying partial correlation. The standardisation strategy is one of the most commonly used approaches which allows standardising either for individual rating of each value, or group rating for group values around individual mean or group mean respectively. However, standardisation is known to change the pattern of inter-correlation within groups and outputs values scores that are often distinctly different from regions expected from the raw data. To avoid this Schwartz (1992b) suggests controlling scale up differences by using individual mean rating for all the values as a covariate in comparisons of group means, or as a third variable whose effect on the correlation between value priorities and other variables is controlled through partial correlation. Such method aims to minimize the effect of structural value relations within samples as well its advantages in application of regression analysis.

Schwartz (2007) suggests that people evolve value priorities that cope with basic needs and with the opportunities and barriers, with the ideas of what's perceived and right or wrong in the society they cohabite in. Also, social experience such as education, age, gender and occupation can influence peoples priorities on the values (Inglehart, 1997; Kohn, 1989; Schwartz and Bardi, 1997; Schwartz, 2003). In addition, the unique experiences that individuals have in their lives such as trauma, relationships with their parents and the attitudes towards different social events in the society can be observed (Feather, 1985).

2.4.3 Inglehart's conceptualization of the human value

In 1970's Inglehart proposed a theory of dynamic change of the human values, particularly, when he observed the change of the values from younger to older generations in the West. Inglehart introduced a set of values to explain the political and social change within nations through the bipolar index Materialism-Post-materialism (M-PM) (Inglehart, 1977; Inglehart, 1997). This model was further expanded to two more cultural dimensions of Traditional versus Secular-Rational values and the Survival versus Self-Expression (Inglehart and Welzel, 2005; Inglehart and Baker, 2000).

The set of human values are based on a bipolar scale of materialism versus post-materialism (M-PM) in the World Value Survey (WVS), which is used as an indicator of cultural change measuring political and social trends within nations.

The questions were designed to measure people's preference between self-actualizations and political participation over economic and physical security. Inglehart postulates on two complementary hypotheses. The theory highlights that when the resources are limited people give greater value to items that are short supply and as long as their survival and material security is maintained, they are driven by materialistic ambitions (*scarcity* hypothesis). And such values reflect ones experience in life (*socialization* hypothesis), internalized and an early age providing a mechanism whereby new experiences or situations are dealt with (Inglehart and Baker, 2000).

Inglehart originally asked the respondents to select only the top two out of four items on national priorities and policies; two assessing materialism and two post-materialism. The expanded questions were included in Inglehart's 1990 – 1991 World Value Survey (Inglehart, 1997). Each with four responses out of twelve items ; six measuring *materialism* (e.g. 'economic growth' , 'strong defence forces' , 'order in the nation', 'fighting rising prices', 'stable economy', and 'fight against crime') and six measuring *post-materialism* (e.g 'more say about jobs and communities', 'make our cities and countryside more beautiful' 'more say in political decisions', 'protecting freedom of speech', 'progress toward less impersonal and more humane society' and 'progress toward a society in which ideas count more than money'). Materialist related questions included; Maintaining order in the nation, Maintaining high rate of economic growth, Maintaining stable economy, Making sure ones country has strong defensive forces, Fighting against crime and Fighting against rising prices. In contrast, items measuring post-materialism included; Giving people more say in decisions of the government, Protecting freedom of speech, Giving people more say in how things are decided at work and in their community, trying to make our cities and countryside more beautiful, Moving towards a friendlier, less impersonal society and Moving towards a society where ideas count more than money. Respondents were then classified as either materialistic, post-materialistic or mixed depending on their selection of the items best representing their first and second priorities of their country's policies. For instance, those who selected maintaining order in the nation and fighting against rising prices were classed materialists in the early Inglehart scheme. In contrast, respondents who select the items "Protecting freedom of speech" and "Giving people more say in decisions on the government" were classed as post-materialists. Those that selected items in both categories were identified as mixed. Items enabling 3-point scale ranking measures are available in most countries covered by WVS, whereas 12 questions allowing for 6-point scale are only available in some countries and waves.

Inglehart's human value indicators were further expanded (Inglehart and Welzel, 2005; Inglehart and Baker, 2000) to include two other dimensions, Self-expression versus Survival, and Tradition versus Secular-Rational. Similarly, ten items are used to classify how respondents score on value dimensions and form clusters. The two-dimensional values aim to capture the main cultural changes across different traditions in societies and it proposes to measure this at an individual level, rather than at country level which was the basis of previous Post-materialistic index (Inglehart and Welzel, 2005).

Inglehart and Baker (2000) suggest that those societies that exhibit high level of physical and economic privileges have stronger tendencies on self-expression and foster a climate of trust. Additionally, they point out that people in this category report good health, take greater responsibility, are more aware of environment issues, are more politically active, embrace tolerance, diversity and subjective well-being. In the opposite dimension are the people that score high in Survival values and they stress materialist goals above others.

The early work by Inglehart has been criticized by some authors. For example, Francis et al. (2002) suggested that reducing the M-PM scale to only three categories missed much of the information in the data, and instead suggested a paired comparison model based on partial ranks of the items. However, the World Value Survey started nearly four decades ago and has been invaluable to generate empirical research, particularly in shedding more light in understanding and measuring human values in nearly 100 countries.

2.4.4 Associations between Schwartz's and Inglehart's human value theories

Comprehensive studies on relationships between different human value theories are lacking, however, more recently scholars have started to look at the differences between Schwartz's and Inglehart's both theoretical and comparatively using data from both surveys. For instance, Datler et al., (2013) conducted more comprehensive comparison of the two theories by using data from both ESS and WVS.

Schwartz and Inglehart's theories and their data have been widely applied in multiple fields such as philosophy, psychology, sociology and cross-cultural studies. Schwartz's ten basic human value factors measure values at the individual level and aim to include all the human values recognized across all the cultures in the world which are distinguished on the bases of motivational goals (see Table 2c). In addition, seven other factors measuring human values at the country level have also been proposed by Schwartz and include Harmony, Embeddedness, Hierarchy, Mastery, Affective Autonomy, Intellectual Autonomy and Egalitarianism (Schwartz, 2006; Schwartz, 1999). Like Schwartz, Inglehart does not measure values per se directly but uses items as indicators to measure cross-cultural variations. These variations tend to be used at the country level, although some authors have used m=PM scale at the individual level (Francis et al., 2002).

According to Inglehart's theory, both country-level and individual level-values are equivalent as, for example, their study showed that pooled national and individual level data scores from similar structures in his defined dimensions (Inglehart and Baker, 2000).

Both Inglehart and Schwartz items provide basic measures of human value orientations but their methodological approach is different.

Both theories emphasize that human values originate from basic human needs, which are universal requirements of human beings including biological need, survival and social interactions.

Inglehart aims to measure values in a less abstract manner than Schwartz, and includes items such as beliefs, attitudes, political views and subjective well-being of respondents. However, individual values are measured indirectly and usually only at the country level. According to Schwartz such measures are prone to historic and situational changes (Devos et al., 2002). In

contrast, Schwartz's items are based on abstract and non-specific motivational goals that are measured directly at an individual level. According to Mohler et al. (2006) these two approaches are incompatible and conceptually different as one is focused on individual psychological differences and the other measure institutional processes. However, a recent study by Dobewall and Rudnev (2013) showed that although both methods measure human values via different approaches (individual vs. country level) the resulted outcome can be remarkably similar and as such they could be applied complementary to each other.

Schwartz measures ten human value items (Section 2.1.2) and Inglehart up to four value items (Section 2.1.3) however, both theories overlap in their intended measurements. For instance, Inglehart's survival needs correspond to the security in Schwartz circle representation of basic human value orientations (Figure 2b). Similarly, self-expression and traditional orientation values in Inglehart's scales correspond with Schwartz's (simulation and self-direction values) and tradition. In addition, Inglehart's secular-rational orientation may be linked to achievement (Schwartz's scales) as secularism was seen as an essential part of modernization processes. According to Datler et al. (2013) Inglehart's values can be placed within the 4 main value orientations in Schwartz human value circle (self-transcendence, openness to change, conservation and self enhancement) however, their orthogonal relationship may not be maintained.

Further differences can be observed in how two theories relate values to gender differences. Inglehart states that there is no difference in values between men and women. In contrast, Schwartz (2006; 2007) emphasizes gender differences where men attribute higher importance to some instrumental values, compared to women; such as higher importance to stimulation, self-direction, and hedonism and lower importance to benevolence and universalism values.

2.4.5 Other value scales: Rokeach's and Hofstede's framework

2.4.5.1 Rokeach's value scale

Rokeach's value scales have been closely identified with the human values classification theory and the introduction of the philosophy linking basic values with attitudes and the beliefs (Levie and Rokeach, 1970).

The value orientation introduced in 1968 was experimented in a survey called the Rokeach Value Survey (RVS) (Rokeach, 1973). The questionnaire contained 36 questions that were designed to measure specific belief systems or value orientations which relate to 18 end states of existence (terminal values) followed by 18 modes of conduct (instrumental values) (Table 2d). Respondents were asked to indicate to what extent they thought each of the values was used by them as a guiding principle in their life. Items were rated on an asymmetric four point rating scale ranging from (1) "I am inclined to reject this as a guiding principle in my life", and (2) "I neither reject nor accept this as a guiding principle in my life", and (3) "I am inclined to accept this as an important guiding principle in my life", to (4) "I accept this as an important guiding principle in my life".

Rokeach proposed a model, which emphasises that, beliefs, attitudes and values are functionally integrated into one cognitive system that drives action. Within this system beliefs represent the core element that guides action, consciously or unconsciously, and such may be inferred from specific actions to particulate situation that the individual portrays (Rokeach and Ball-Rokeach, 1989). The model views values as a single belief that guides actions/judgments not only at a specific situations but they effect more ultimate and end state existence goals.

Rokeach's survey aims to measure two main modes where the former is referred as "instrumental" and the latter as "terminal". For example, instrumental values relate to modes of conduct and measure characteristics such as independence, responsibility and ambition. Whereas, terminal values refer to end state of existence that an individual might desire, which include salvation, security and exciting life. The RVS survey used in the Nature of the human values has encouraged many empirical studies in analyzing the role of the human values in the social sciences; political ideology (Rokeach, 1973); personality assessment (Heaven, 1993); moral assessment (Weber, 1993); process and outcome of psychotherapy (Kelly, 1990) etc.

Terminal values	Instrumental Values
True Friendship	Cheerfulness
Mature Love	Ambition
Self-Respect	Love
Happiness	Cleanliness
Inner Harmony	Self-Control
Equality	Capability
Freedom	Courage
Pleasure	Politeness
Social Recognition	Honesty
Wisdom	Imagination
Salvation	Independence
Family Security	Intellect
National Security	Broad-Mindedness
A Sense of Accomplishment	Logic
A World of Beauty	Obedience
A World at Peace	Helpfulness
A Comfortable Life	Responsibility
An Exciting Life	Forgiveness

Table 2d. List of terminal and instrumental values used in the RVS

However, this model of measuring values was criticized for lacking specificity and making hard to give meaningful results due to using broad and general terms of the terminal and instrumental sub-scales (Kelly and Strupp, 1992). Additionally, clear distinction between personal/ social/ moral/ domain values have not received great empirical acceptance (Weber, 1993). Furthermore, using single items rather than multiple item operationalization to measure the value constructs gives room to errors due to linguistic ambiguity interpretations (Gorsuch et al., 1970; Braithwaite and Law, 1985)

2.4.5.2 Hofstede's value scales

Geert Hofstede (1980), using data from IBM employees (computer manufacturing company) from 40 nations between 1967 and 1969 attempted to solve organizational problems through understanding cultural differences. He highlighted four main dimensions that respondents fit to. He started collecting data from 117,000 IBM employees, using a 32 value statements. Through the study, Hofstede noted approximately 90 significant and independent correlations of variables that could fit with his four dimensions which were cross validated with different samples and related to country GDP per capita and income inequality. In addition, he further validated these dimensions by expanding to include 50 nations (Hofstede, 1983) where the outcomes could be classified into these four dimensions. According to Hofstede (2001) such dimensions were found in another 140 non-IBM data studies which were validated by a cultural index. These four cultural dimensions remain a core part of cultural research and were identified as followed:

- 1) Power distance
- 2) Uncertainty Avoidance
- 3) Individualism
- 4) Masculinity

The *power distance* dimension implies that the extent which people accept power in institutions and organizations is not equally distributed. The *uncertainty avoidance* relates to the extent that people feel uncomfortable with uncertainty and ambiguity.

Individualism is linked to loosely knit social framework which individuals prefer to take care of themselves or their families, in contrast to collectivism, which is associated with tightly knits of social networks that individuals expect to use if looking after themselves or families. The fourth dimension, *Masculinity* is represented by a preference of achievement, heroism, assertiveness and material success over those that prefer femininity, modesty, caring for weak, quality of life and fostering relationships.

Hofstede's framework has provided empirical evidence of different value ordinations across nations and such it has greatly impacted research on values and cultural differences. In particular, his work has been widely applied for commercial purposes in understanding organizational behavior as well as marketing and advertising.

In contrast to Hofstede's value scales, Schwartz's items offer several advantages because they are theoretically derived, more comprehensive set of value dimensions and have been tested

with more recent data with two matched samples (student and teacher samples). In addition, samples were taken for more diverse regions including socialist countries such as eastern European Block countries. Hofstede's framework on the other hand has been criticized for lacking generability and being too condensed to capture culture, as well as dimensions being derived from old data (McSweeney, 2002; Shenkar, 2001; Smith et al., 2002; Williamson, 2002).

2.4.6 Conclusion

Both Hofstede and Rokeach measure values at a country level and are not suited for individual value scales. Hofstede scale was designed to measure value orientations as a comparison between nations or cultural regions of 53 countries. In addition, the measures are constrained to work related values, as in IBM employees, and do not measure human values of other life domains. Furthermore, the value scale was not designed to measure the relationships between individual values and opinions or behaviours, which are a major part of my study. Similarly, Rokeach's value scales are also limited to country level and are seen as abstract measures which lacking specificity and making hard to give meaningful results due to using broad and general terms of the terminal and instrumental sub-scales. And such scales do not allow for comparison study of relationships between values and other variables such as attitudes, behavior and opinions. Social capital was not included as a measure as it is also community level measurement rather than an individual measure.

In contrast to Rokeach and Hofstede, Inglehart provides a more comprehensive measure of human values which are in a less abstract manner, as motivational goals. However, the aim of this scale was to measure values also at country level but only measures individual values indirectly. Such measures are prone to historic and situational changes. Schwartz items are based more abstract and non-specific motivational goals, compared to Inglehart, but they are measured directly at an individual level, and are better indicators of individual changes over time and direct relationship measures with opinions, attitude and other factors. Despite this Schwartz's human value items have been accepted as part of the ESS survey, conducted every two years, across 37 countries since 2002, with high consistency in data quality, providing solid grounds for cross-country comparisons.

We adopt Schwartz in this study for two reasons –first is the pragmatism that the structure of the values offers and it is collected over seven sweeps of the ESS in a large number of European countries. The second reason is that it covers a wider range of values that are more oriented towards the individual rather than the policies of a country.

2.5 Ethnic minority, majority and migration (differences between)

I now turn my attention to the measurement of what can loosely be termed immigration status, ethnicity or majority/minority status.

This section highlights the differences in defining and measuring ethnicity among scholars and gives more details on how ESS measures ethnicity in different dimensions that are more inclusive and representative of different groups and society. Given that a core aim of the thesis is to study attitudes to immigration amongst the non-native population this section reviews how the concept of non-nativeness is defined and measured in the literature.

Immigration has given rise to societies that have become culturally plural as people from different cultural backgrounds move across countries and live together in a diverse society. When this happens, different cultural groups can be formed in the recipient country. However, at the same time the newly formed groups are not equal in power (e.g., population size, economic capability and political influence) and as such they are differently addressed. Hence, this has led to commonly used terms in societies or social sciences that differentiate cultural groups as “mainstream” or “majority” referring to the dominant groups and “minority” or “ethnic groups” populations to those that are non-dominant or less equal in power (Berry, 1997). There are two main models that emphasise how different cultural groups should form relationships; the right wing, *mainstream – minority* and on the left, *multicultural model* (Berry, 2011). The former’s model views that there is or should be one dominant society, and minorities remain marginalised unless they are incorporated as indistinguishable part of the mainstream. An example of this is French society, which demands that all citizens conform to French values. The latter model’s view is that there is or should be a national framework of institutions that creates the larger society, which accommodates the interests, the needs of different existing cultural groups, which are fully incorporated as ethno-cultural groups (Berry, 2011).

Different cultural groups may exist in plural societies and according to Berry (1997) such groups exist primarily due to three factors - voluntariness, mobility, and permanence. Population groups enter an acculturation process via different paths; for instance, immigrants may become part of society voluntarily, whereas indigenous people and refugees may

experience acculturation non-voluntary as a result of population movement from new locations. Once groups are displaced and migrate to another country they might either remain a part of the receiving country permanently or only stay temporarily in the case of students or short-term workers. However, regardless of the path of immigration that leads to contacts between cultural groups the adaptation process, acculturation seems to be common to all groups involved (Berry et al., 2006a). The main variation is the path, the difficulty level and the end result of acculturation process and this is greatly influenced by the three main factors of voluntariness, mobility and permanence, although other factors may also contribute (Berry, 1997).

The word ethnicity is derived from the Greek word *ethnos*, meaning a nation. However, different terminology has been used to describe segments of populations that come from different minority ethnic groups; this inconsistent terminology has led to ambiguity regarding the population being described.

The word ethnicity is used to categorise people that belong or are perceived to belong to a group that share common characteristics or features which include multiple variables such as geographical ancestral origins, as well as language and cultural traditions. Such characterisation is not fixed and tends to change. The precise dimension and assignment of ethnicity has been problematic and difficult to measure as its definition involves many factors. According to the Harvard Encyclopaedia of American Ethnic Groups (Fishman et al., 1980) ethnicity is characterised by the combination of at least 14 features as follows: (1) common geographical origin; (2) migration status; (3) race; (4) language or dialect; (5) religious faith; (6) ties that transcend kinship, neighbourhood and community boundaries; (7) shared traditions, values, and symbols; (8) literature, folklore, and music; (9) food preferences; (10) settlement and employment patterns; (11) special interest in regard to politics in the homeland and the US; (12) institutions that specifically secure and maintain the group; (13) an internal sense of distinctiveness; and (14) an external perception of distinctiveness.

Phinney (1990) also identifies five components of ethnicity as follows 1) ethnicity, by which she refers to a person's heritage, parent's ethnicity, country of origin; 2) self-identification as a member of an ethnic group; 3) ethnic belonging by which means to a sense of belonging to the self-identified ethnic group; 4) ethnic involvement she refers to the active engagement with the members of the ethnic group and 5) ethnic attitude, which refers to the opinion towards the self-identified group. The attempt to break down different components and use specific

terminology is positively endorsed by the researchers as a way to operationalise the ethnicity within survey (Phinney, 1990; Senior and Bhopal, 1994; Singh, 1997; McKenzie and Crowcroft, 1996).

Various authors emphasise that sub-national and ethnic identities are the core of social identification (Erikson, 1959; Erikson et al., 2001; Roberts et al., 1999). In addition, Tajfel (1982) defines social identity as “the individual’s knowledge that he belongs to social group with some emotional and value significance to him of his group membership”. According to Social Identity Theory (SIT), individuals seek positive social identity and self-concept and form memberships that differentiate them from others’ groups, and such positive distinctiveness with their own group compared to other groups helps them to protect and maintain their self-esteem (Tajfel and Turner, 1979; Giles and Turner, 1981). However, an individual’s affiliation with one group compared to another is significantly influenced by interpersonal and intergroup relationships, which evolve over time (Smith and Kessler, 2004). On this basis, it can be assumed that sub-national and ethnic identity are formed through contact and always forming a comparative identity that either perceives themselves with less or more value than other groups (Leets et al., 1996). Although, when these identities are formed, it is assumed that they are objective on the basis of political, geographical and physical realities. The measurement of sub-national ethnic belonging is always subjective because it depends on, self-conception, affective feeling as one social definition of others in the relevant environment (Billiet and Leuven, 2002). The use of ethnic identity labels has not been often consistent, as for example, race and ethnicity are different but they are often used interchangeably. In addition, the term “non-white” is used to describe collective description of minority populations that are non-native.

However, given different theories on explaining ethnicity exist and vary by scholars, it has been difficult to precisely measure it across disciplines, including in the social science disciplines. In measuring ethnicity, Leets et al. (1996), emphasised that two fundamental perspectives are used and this is defined by a dichotomy of *primordialism to instrumentalism*. The theory assumes that humans, by nature, have an innate need for group affiliation that is best satisfied by maintenance of ethnic identity. Whereas the *instrumentalism* theory, in contrasts, suggests that ethnic identity should not be related to genetic predisposition and should be defined by social factors. Furthermore, social identity theory, apart from *instrumentalism*, adds the dimension of *postmaterialism*, which claims that ethnic identity, is not a firm phenomenon and can be reconstructed in interaction. According to Billiet and

Leuven (2002) each of the proposed theories on ethnic identity make its measurement virtually impossible.

Some of the earlier surveys such as International Social Survey Programme (ISSP) 1995 used theoretical and geo-political approach to measure ethnic identity, which used set of questions that ask the respondents where they live at country and regional level, the country where their ancestors came from and self-placement at a list of ethnic groups. The survey provides a more practical approach to measuring ethnic identity to some extent.

The ESS has included core items in their survey in order to provide a measure of ethnic identity. The survey uses some of the methodology applied in the ISSP survey as well as expansions from Erikson et al. (1999) followed by later additions by Billiet and Leuven (2002). Erikson and Johnson (1999) suggested that questions asking the respondents on their country of origin, nationality, mother tongue and religion together would provide a sufficient approach to measuring ethnic identity, hence, these items have been the core to ethnic identity in the ESS surveys. According to Erikson and Johnson (1999) such approach would enable not only to identify individuals from different nations but also a distinction between individuals originating from same country but of different nationality. Further addition, proposed by Billiet and Leuven (2002) allows more detailed measurement of ethnic identity and included expanded questions on national identity, citizenship, language, for example, questions on the language used by the respondent in everyday life. Also self-defining questions on the ethnic identity that respondents feel they belong as well as closeness towards the chosen group as well as feelings in relation to being part of sub-national identity such as local area, region, and a country as a whole.

Although the correct definition of a minority population or an ethnic group is still debatable and the work by Erikson and Johnson and extensions added by Billiet and Leuven have been accepted as an appropriate approach of measuring ethnic identity in the ESS surveys. This provides more practical approach to measuring ethnic identity to some extent. Also self-defining questions on the ethnic identity may provide a measure of integration and closeness with majority within local areas, regions, and a country as a whole.

2.6 Linking attitudes to immigration and human values

Human values can be seen as abstract principles or beliefs that underpin attitudes towards specific objects, such as immigration (Rokeach, 1973). Values and attitudes are closely related but are often they are used inter-changeably in the literature without clear distinction. In this thesis, I use the following distinction. Attitudes are defined as a response to a specific object or situation with certain degree of preference (e.g., like or dislike), sometimes but not always measured on a Likert scale. Attitudes will evaluate a particular object, behaviour, or situation either positively or negatively based on belief, which serves as quantitative evidence for analysis. In contrast, defined values are beliefs transcending specific goals, serving as standards or criteria, ordered by importance relative to one another which serve as guiding principles in a life of a person or social entity (Schwartz, 1994). A value can be thought of as a mode of action that one conduct is preferable over another mode of action or product, whereas an attitude towards a specific object is based on a combination of value beliefs. In other words, a human value serves as bases of actions but depending how the basic values are scored or ranked in an individual it would give rise to a certain attitude towards a situation, for example, immigration. It has also been suggested that values are cognitively related to attitudes (Hitlin and Piliavin, 2004).

The initial study by Schwartz on norm-activation theory (Schwartz, 1977) on values driving altruistic behaviour has been extended to other specific attitudes such as environment protection perception, wealth redistribution, consumer behaviour, buying organic foods, attitudes to nuclear power, attitudes towards immigration, homosexuality or even bats (Homer and Kahle, 1988; Grunert and Juhl, 1995; Kingston, 2016; Kuntz et al., 2015; Davidov and Meuleman, 2012; Davidov et al., 2008). This theory suggests that certain conditions, perceived as a threat, to something that the individual values (own wellbeing, others' wellbeing, nature) are responsible for activating personal values, for which an individual may feel a moral obligation to act. For instance, in the case of environmental protection, self-transcendence value norms were shown to influence the personal norm positively, whereas, self-enhancement produced a negative effect (Nordlund and Garvill, 2002).

There are only a few studies that have looked at the relationship between human values and attitudes to immigration. The major pieces of work are by Davidov and his colleagues (Davidov

and Meuleman, 2012; Davidov et al., 2008), by Ramos and Vala (2009), by Vala and Costa-Lopes (2010), and a more recent study by Ponizovski (2016). Table 2d. summarises human values and attitudinal variables that have been used in these studies as well their data sources.

The first study by Davidov et al. (2008) examined the relationship between human values and attitudes to immigration across 19 European countries. They looked at the relationship of a subset of Schwartz's values. These are the Universalism value which contributed to the *self-transcendence dimension* and the Tradition value (which is part of the *conservation dimension*) on attitudes towards immigration using *two* attitudinal questions in the ESS first wave of data (2002-03). The first attitudinal questions 'allow' asked the respondents if they were willing to allow immigrants of a different backgrounds such as different race or ethnic groups, poor countries (outside or with Europe) and rich countries. The second question examined if there were any conditions in allowing immigrants in their country and included conditions like good educational qualification and work skills, as well as a no-condition option. The results from the study concluded that the values of conservation and self-transcendence have a significant effect on the variable "allow" in all countries analysed. The self-transcendence value of universalism had a positive effect on variable "allow" whereas the conservation value of tradition, in contrast, had a negative effect. The authors concluded that individuals scoring high in universalism have positive attitudes towards allowing immigrants into their country and those with a higher score on the tradition value have more negative attitudes. In addition, respondents with a high score in universalism also scored high on the variable "no-condition" and so indicated that those with high universalism values are less likely to want to restrict immigration by factors such as education, level of skill, age etc. Further, cross-cultural analysis indicated differences in effect size between countries. In respect of the variable "allow" although there were two main clusters of countries (13 vs. 6 countries) with small differences, the authors concluded that their hypothesis "the effect of self-transcendence on 'allow' is equal across these countries" was not rejected as the variable of universalism showed similar effect on 'allow' in both clusters. However, more cross-country differences were apparent when the variable "no condition" was analysed. The strongest effect was found in the first cluster, which included Belgium, France, Ireland and Sweden as countries with the highest score in reporting "no conditions" in allowing immigrants. This was followed by the second cluster with a far less strong effect, with the exception of Slovenia, and included Western or Northern European countries such as Denmark, Great Britain, Switzerland, Finland, Netherlands, Norway and Austria.

A later study by Davidov and Meuleman (2012) looked at the role of human values in explaining attitudes towards immigration policies in European countries. Using data from three rounds of the ESS, 2002-03, 2004-05 and 2006-07, the authors tested the hypothesis as to whether values contributing to *self-transcendence* are more supportive of immigration, and values contributing to the *conservative dimension* are more averse to immigration. Three rounds of data were pooled from each of the 20 European countries and these included UK, Germany and Sweden. This research, similarly to the earlier study by Davidov et al. (2008) also demonstrated that “self-transcendence individuals displayed a lower tendency to reject immigration whereas conservative individuals rejected immigration more strongly. In addition, the authors further concluded that the effect of values on attitudes was found to be generally consistent amongst all countries and they have shown for the first time that values in such large scale data make a considerable contribution to the explanation of anti-immigration attitudes.

Another cross-national study by Vala and Costa-Lopes (2010) looked at youth attitudes towards difference and diversity. The study was based on two separate data sources. The first part of their work focused on the relationship between youth and diversity: youth reaction to members of groups perceived as being “different” was analysed using data from the World Value Survey. Using the questionnaire data from the 1999-2000 wave, the study aimed to identify the groups of people that respondents would rather not have as neighbour. The attitudinal responses to two main groups of people was studied which included those defined as *stigmatised* (people with AIDS, homosexuals, emotionally unstable people) and *racialised* or *ethnicised* people (immigrants, people of different race, people of a different religion).

In order to perform the cross-cultural analysis the authors used seven main “cultural regions” based on predominantly religion and geographical idiosyncrasies and included *Protestant, Catholic, Islamic, Orthodox, Central Europe, Latin America and Sub-Saharan Africa*. The study showed youths expressed a lower level of intolerance to groups considered *stigmatised* and compared to the older generation. This was consistent across 65 countries of seven cultural regions except countries included in the Sub-Saharan Africa categories, where older generations expressed lower intolerance compared to younger people. In the second part of the study Vala and Cost-Lopes (2010) used data from the ESS (wave 1, 2002) to examine the role of Schwartz *conservation* and *self-transcendence* dimensions in forming attitudes towards diversity. Similarly to the WVS data outcomes, it was shown that younger people showed more openness to cultural diversity than older people in European countries. In addition, *self-*

transcendence contributed positively towards openness to cultural diversity and in contrast *conservation* correlated negatively. This was consistent across all of 21 European countries included in the study.

Ramos and Vala (2009) studied predictors of opposition towards immigrants of “different ethnic groups” and “poor countries” in five European countries using data from ESS round 1. The study examined only five European countries in the ESS and included UK, Germany, Portugal, Netherlands and France. The opposition to immigration was measured using three theoretical models as predictors and briefly include a) economic model, b) social capital model and c) human value model. In the last model (c), they tested the hypothesis that Schwartz’s human values of *conservation* and *self-enhancement* have a positive correlation with opposition to immigration whereas *self-transcendence* and *openness to change* values have negative correlation. The authors confirmed their hypothesis that *self-transcendence* plays a role as a positive promoter of attitudes to immigration and *conservation* values as a negative influencer of attitudes to immigration. However, the hypothesis that *self-enhancement* plays a negative effect and *openness to change* a positive response to immigration attitudes was not confirmed.

A more recent study by Ponizofskiy (2016) also looked at the relationship between the human value items of *self-transcendence* and *conservation* on attitudes towards immigration, whilst additionally examining the effect of cross-cultural differences amongst 25 European countries. Whilst the study demonstrated an overall positive effect of self-transcendence and a negative effect of conservation on immigration attitudes it also demonstrated that cross-cultural variation improved predictability of relationship between values and attitudes.

In contrast above studies (Davidov and Meuleman, 2012; Davidov et al., 2008; Ramos and Vala, 2009; Vala and Costa-Lopes, 2010) Ponizofskiy’s (2016) findings disagrees that there is universality of the pattern in respect to human value orientation and attitudes to immigration and the study highlights that values account for a sizable proportion of variance in attitudes towards immigration. In particular, the study suggest that in some countries universalism values, equality, tolerance and equal opportunity might improve attitudes towards immigration but in other countries there may not be an effect of such value or even opposite effect can be observed. According to Ponizofskiy such differences in cultural contributions are expected between Eastern and Western European countries where universalism value dimension is

linked with more positive attitudes to immigration in the West than in the East and this might be due to differences in value-meaning of attitudes towards immigration between different countries and these value meanings are formed due to culture-specific discourse.

In summary the number of studies that have examined the relationship between human values and attitudes to immigration are still scarce. In overall, analysis from these studies above show evidence that some human values, in particular some values from the *self-transcendence* dimension show a positive relationship to the formation of attitudes to immigration; in contrast values from the *conservation* dimension show a negative relationship to positive attitudes to immigration. In general, this seems to be consistent among different countries and cultures. However, the value meaning and the direction of correlation might not always be consistent between countries or cultures and might follow a culture-specific discourse.

Most of the above work can be criticised for examining only a subset of human values, and not the full collection of available human value measures, the exception being Ponizofsky's study (2016). For example, it might be thought that the human values of security, benevolence and achievement may also affect attitudes to immigration. Thus immigrants may be unwelcome to some because of security concerns (security) and unemployment and job availability (achievement); alternatively high benevolence in an individual would perhaps be more likely to welcome needy and refugees from other countries. There is therefore a case in any future analysis of including a wide range of value measures as explanators. Indeed, as each value is measured by only two or three items in the ESS, it may be interesting to use individual value items as predictors.

To conclude, we can summarise existing studies in Table 2e. We can see that most studies used the ESS data, and the focus of most of the studies was on the self-transcendence and conservatism dimensions as measured through the universalism and tradition values. We seek to extend this work by including a wide range of value items in the analysis in this thesis.

Author	Attitudinal questions	Variables used	Human Values	Data
Davidov et al., 2008, ESR	Allow same, different and poor countries outside Europe - Willingness to allow immigrants in their country	Age, gender, level of education, household income, religiosity, attendance of religious services, and left-right orientation. Additionally, we controlled for four contextual variables, namely GDP per capita, GDP growth, the inflow of immigrants, and the stock of foreign-born population	Self-transcendence and Conservation	ESS 2002
Davidov & Meuleman, 2012, JEMS	Allow immigrant from: same (QB35); Different (QB36); Poor (QB37) backgrounds	Education, religiosity, gender, age, income and left-right orientation	Self-transcendence vs. Conservation. ESS 2002, 2004 and 2006	ESS- 2002, 2004 and 2006
V.A. PONIZOVSKIY, 2015 - PGHSE	Q1) immigrants are bad or good for the country's economy, Q2) country's cultural life is undermined or enriched by immigrants, Q3) immigrants make the country a worse	Gender, age, income and education	Ten human values, ESS waves 2010 and 2012	ESS -2010 and 2012
Ramos and Vala, 2009	Q1) allow people of the same race or ethnic group? Q2) Different race or ethnic group from most? Q3) allow people from the richer countries outside Europe to come and live here? Q4) People from the poorer countries outside Europe?	Social capita <u>Interpersonal trust</u> 1) Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? 2) Do you think that most people would try to take advantage of you if they got a chance, or would they try to be fair? 3) Do you think that most people would try to take advantage of you if they got a chance, or would they try to be fair? <u>Trust in national political institutions</u> 4) Level of personal trust in the "European Parliament" and in the "United Nations" Economic self interest Household income Employment situation	Self-transcendence, Openness to change, Self-enhancement, Conservation	ESS- 2002

Table 2e. Studies linking human value dimensions and attitudes towards immigration

2.7 Chapter 2 summary

In summary, I have identified that a broad range of theories on attitudes to immigration exist. Attitudes towards immigration tend to differ between countries depending on many factors, including; economic development, cultural traditions, political views etc.

Attitudes towards specific situations or objects are portrayed at a given point depending on beliefs that one might have, and such beliefs are said by many authors to be directly linked to human values that one might hold. Cross-country surveys such as the World Values Survey (since 1981) and the European Social Survey, since 2002 have enabled the study of cultural differences across many countries and have proved vital in many fields including psychology, sociology, philosophy, politics and economics. However, only a limited number of studies have looked at the differences in human value orientations between minority and majority populations cross-nationally. Given that basic human values form the basis where beliefs and attitudes are created, measuring them directly would help to better understand the basic differences or similarities between groups. This would further give insights into whether closeness of values between minority and majority populations, in a given country, would increase the likelihood of social cohesion and if increased distance in values signifies dissimilarities. Furthermore cross-country comparison of human values would enable to identify any county-specific patterns that effect integration of minority groups.

This section has focused on the economic and social drivers affecting attitudes to immigration; the next section focuses more specifically on attitudes to immigration and the importance of human values in explaining attitudes.

To summarise, each country has followed its own route to dealing with immigration, however they seem to come together in more integrative policies in the 21st century. This is no doubt due to closer integration with in the EU.

In this thesis, I choose to examine three European countries; UK, Germany and Sweden because they have historically had different immigration backgrounds, distinct immigration policies and are also amongst top ten countries with the highest rates of immigration in Europe. This study therefore differs from other studies the literature which examine a greater number of countries, but assume that the drivers of attitudes to immigration are the same

within each country. In contrast, my study examines three countries in depth, and will allow the drivers of attitudes to vary country by country.

To conclude, we can summarise existing studies relating human values to attitudes to immigration in Table 2e. We can see that all studies used the ESS data, and their main focus has been on the self-transcendence and conservatism dimensions as measured through the *universalism* and *tradition* values. We seek to extend this work by including a wider range of value items in the analyses in this thesis.

Chapter 3. **The European Social Survey**

3.1 Introduction

The European Social Survey (ESS) is a cross-national survey and has been carried out across Europe since 2002 at 2 years intervals. Data collection consists of regular sweeps, with an independent cross-sectional sample in each country. First sweep of the survey included 21 European countries, as well as Israel, and now there are a total of 36 participating countries (ESS, 2016). The ESS is funded via the European Commission's Framework Programmes, with supplementary funds from the European Science Foundation (Schnaudt et al., 2014).

All EU Member states apart from Malta have participated in the ESS, as have nine other countries outside the EU (Albania, Kosova, Iceland, Israel, Norway, Russia, Switzerland, Turkey and Ukraine). The survey's objectives are to collect data in order to identify the status of social structures, conditions and attitudes and to analyse how Europe's social, political and moral values are changing with time. ESS aims high standards in cross-national research in the social sciences, for example, data collection, sampling, translating, reduction of bias and the reliability of questions. One of their main objectives is introducing the indicators for national progress, based on the perceptions and the judgements of the citizens. An important part of providing high quality data as part of their aims is by training the European researches in comparative quantitative methods and analysis. In addition, data are made freely available for analysis to academics, policymakers and the wider public (Aleksynska, 2011; Ivarsflaten, 2008; Hooghe and Marien, 2013; Hough et al., 2013; Soons and Kalmijn, 2009; Polavieja, 2013; Svallfors, 2013; Fridberg, 2012; Olsen and Dahl, 2007). According to ESS the number of registered users aiming to access to the data or the protocols has now reached more than 60,000 people (ESS, 2016).

3.2 Data collection and handling

The target population of each participating country is residents 15 years or older in private households within the borders of the country, regardless of the citizenship, nationality, legal status or language they speak. Surveys are asked to be translated in the minority language, if that language is spoken by 5% or more of that group as a first language.

The ESS is also aiming to achieve high standards for data acquisition methods including questionnaire design and pre-testing, sampling, data collection, reduction of bias and the reliability of questions.

The questionnaire is divided into two main components, the core questions and the rotating questions (Table 3a).

The core modules aim to be consistent in monitoring the change by using essential components where they are reused in every round of data collection. This mainly relate to people's value and ideological orientations, people cultural and natural orientations and the underlining social structure of society.

Rotating modules give an in depth focus to topics, which might change from round to round, for example, those relating to particular academic or policy concerns.

	R1	R2	R3	R4	R5	R6	R7
	2002	2004	2006	2008	2010	2012	2014
Media and social trust	•	•	•	•	•	•	•
Politics	•	•	•	•	•	•	•
Subjective well-being...	•	•	•	•	•	•	•
Gender, Household	•	•	•	•	•	•	•
Socio demographics	•	•	•	•	•	•	•
Human values	•	•	•	•	•	•	•
Immigration	•						•
Citizen involvement	•						
Health and care		•					
Economic morality		•					
Family work and well-being		•			•		
Timing of life			•				
Personal ... well-being			•			•	
Welfare attitudes				•			
Ageism				•			
Justice					•		
Democracy						•	
Health inequalities							•

Table 3a. Questionnaire themes covered in core and rotating sections in each round (R) of the ESS (adapted from ESS, 2016)

ESS aims to provide high quality data that are comparable between countries by performing pre-testing quantitative and qualitative methods when designing questionnaires as well as consistency in questioning their selected respondents. However, language differences between countries add another factor which cannot be easily addressed by pre-testing approach.

Although ESS aims to keep the wording unchanged through repeated rounds, national teams

can, in some instances, change translations in order to make sure that what it is intended to be measured and what is intended to be asked are well matched in a question. TRAPD (Translation, Review, Adjudication, Pre-testing and Documentation) approach (Harkness et al., 2003) is the basic procedure applied to any new translation in each participating country before they are incorporated into the final questionnaire. For instance translated questioner is pre-testing quota-controlled, demographically balanced sample of around 50 people is normally used in order to check routing and comprehension of the new language testing. In particular, this is beneficial to check the linguistic equivalence between the translated version of the questionnaire and the source which is designed in British English.

The typical frame of questioning involves about one hour face-to-face interview (socio-demographic) covering the core and the rotating modules followed by self-completion section of 40-50 items (10-12 minutes). Face-to face interviews are generally half an hour in length; however, the interviewer in their respective national countries has a choice how to conduct the supplementary questionnaire. This can be done by presenting the supplementary questionnaire at the end of the main interview in three alternative ways:

- As a straight form of continuing of the face-to-face interview
- As a self-completion form while the interviewer is still present
- As a self-administered form to be returned by post or collected by the interviewer.

Although, attempts on experimenting with techniques such as telephone as a form of first approach with the respondents in Switzerland has been made and it has resulted with lower response rates. Therefore, the ESS assumption for following other techniques prior face-to-face interviews would result with higher refusal rates was confirmed (Lyn et al 2009).

3.3 Sampling

The aim of ESS is to “design and implement workable and equivalent sampling strategies in all participating countries”. The main cores of best sampling techniques to be followed by each country are based on the guidelines that expect randomly selected sampling to be applied with estimates of comparable precision. In addition, full coverage of the population, non-response reduction and considering of design effects to minimize the likelihood of biased data.

The basic principle of sampling approach is based on the work by (Kish, 1994), which highlights that the flexibility of choice is advisable from multinational comparisons, because sampling resources differ between countries and such best random sampling practice should be used in each participating country.

The choice of the sampling design can vary depending on the ability of frames, experience and cost in different countries. The quality of the frames depends on the coverage of persons belonging to the target population such as updating intervals of accessibility; therefore, frames have to be evaluated carefully as they differ at country level. For instance, Norway, Sweden and Denmark have reliable list of residence whereas UK, Switzerland and Netherlands have reliable list of households and addresses which are easily accessible and up to date. In contrary Portugal and France do not poses such information.

Drawing a sample with the lack accessible information on listed residences (as in France or Portugal) requires a more complex design frame for selecting population. In such instances, multi-stage designs are usually applied, for example, one first stage of selecting involves selection of municipalities followed the second stage of sub-selecting households within the selected municipalities.

Variety of complex sampling designs were used at national levels and included, for example, multi-sage stratified and clustered sampling in rounds 1-5. Unstratified two-stage probability sampling has also been applied where a sample frame of individuals is not available.

The target population under study, in every participating country, should only be respondents with a minimum age of 15+ who are residents within private houses regardless of nationality, citizenship or language. However, homeless and institutional population are excluded from the study.

The first stage of sampling consists of choosing the primary sampling unit, mainly the house or postal delivery point selected with equal probability. The second stage consists of choosing a person within a household by using mainly the Last-Birthday-Method for the residential population aged 15+. The requirement for sample design was that every person with the defined characteristics should have a non-zero chance of selection.

The sample size specifications of ESS are also to obtain at least a minimum sample size of 1500 for countries with population size of more than 2 million, after discounting for design effects, or 800 in countries with a population of less than 2 million. Data are collected every two years using a new sample of respondents at each sweep and seven rounds of survey data are currently available. However, not all the countries are included in each ESS round and number of respondents is generally different. Table 3b shows list of countries consistently surveyed and number of respondents in each county and sweep, funding provided and rate of response. The goal of sampling design is to achieve at least a 70% response rate, however, this could be a challenge in some countries where a 50% response rate is common. In such cases, countries should increase the gross sample size in the areas where the response rates are low. In low rate areas sampling strategy is often applied in order to obtain sufficient number of contacts prior to surveying, however, such transition process requires the application of weighting on collected data to minimise biasness.

	Round 1 [2002]	Round 2 [2004]	Round 3 [2006]	Round 4 [2008]	Round 5 [2010]	Round 6 [2012]	Round 7 [2014]
Belgium	1899	1778	1798	1760	1704	1869	1769
Denmark	1506	1487	1505	1610	1576	1650	1502
Finland	2000	2022	1896	2195	1878	2197	2087
France	1503	1806	1986	2073	1728	1968	1917
Germany	2919	2870	2916	2751	3031	2958	3045
Hungary	1685	1498	1518	1544	1561	2014	1698
Ireland	2046	2286	1800	1764	2576	2628	2390
Netherlands	2364	1881	1889	1778	1829	1845	1919
Norway	2036	1760	1750	1549	1548	1624	1436
Poland	2110	1716	1721	1619	1751	1898	1615
Portugal	1511	2052	2222	2367	2150	2151	1265
Slovenia	1519	1442	1476	1286	1403	1257	1224
Spain	1729	1663	1876	2576	1885	1889	1925
Sweden	1999	1948	1927	1830	1497	1847	1791
Switzerland	2040	2141	1804	1819	1506	1493	1532
United Kingdom	2052	1897	2394	2352	2422	2286	2264

Table 3b. List of countries included in every ESS round and number of respondents in each sweep.

3.4 Data processing and Weighting

ESS provides guidance for the application of three types of weights when using their data, which are provided as variables within the dataset. This enables to reduce the bias in the data as weights are considered as the major component of survey sampling. This approach has been part of ESS data since 2002 and includes: Design Weights (DWEIGHT), Post-Stratification Weights (PSPWGHT), Population Weights (PWEIGHT)

3.4.1 Design Weights (DWEIGHT)

The main reason of having design weights is correcting for over representation of some groups or regions of population. Probability of being selected is not similar amongst all individuals aged 15+ in participating countries due to different sampling methods applied across the countries (Weighting ESS Data, 2014).

Applying Design Weights enables correcting for sample selection bias. In particular, in countries that apply complex sampling techniques.

3.4.2 **Post-stratification weights (PSPWGHT)**

Design weights only corrects for the biasness coming as a result of the sampling designs; however, data collection process can also encounter other errors including i) sampling error and ii) non- response error in which cases Post-Stratification of Weights can be applied;

- i) The sampling error, occurs when attempting to measure a fraction of the population.
- ii) Non- response error can lead to over or under-representation of people with certain characteristics

This provide more sophisticated weighting strategy that uses supporting information on age-group, gender, education and region are used to reduce the sampling error and non-response error. The weights are gained by adjusting the design weights in a way that they will replicate the distribution of the cross classification of age group, gender, and education as well as the marginal distribution for region in the population.

The methodology calculates the weights for the post-stratification is the raking procedure, which matches weighted marginal distributions of a sample to a known population margins. The weights were calculated using R software (R Core Team, 2013) applying the package (Lumley, 2013). The method uses an iterative processing where post-stratification is applied for the know population margin until a convergence is reached, i.e., the weights stop changing (Lumley, 2010, page 139).

The Labour Force Survey (LFS) provided by Eurostat is used as a control dataset due to its continuous coverage of the data and the high expertise in handling methodological issues around population controls. The original variables that are used to calculate the weights in ESS data are as follows: gender (“gndr”), age (“agea”), education (“edulvla”) and region as summarised in Table 3c.

ESS coding	UK	DE	SE
Agea	0=missing; 1= 15-34y; 2=35-54y; 3=55+y.	0=missing; 1= 15-34y; 2=35-54y; 3=55+y.	0=missing; 1= 15-34y; 2=35-54y; 3=55+y.
Gndr	0= missing; 1= male; 2= female.	0= missing; 1= male; 2= female.	0= missing; 1= male; 2= female.
Eduvlva	1 = Lower education 2 = Medium education 3 = Higher education	1 = Lower education 2 = Medium education 3 = Higher education	1 = Lower education 2 = Medium education 3 = Higher education
Region	12 regions	16 regions	8 regions
Control variables	G A R	G A E R	G A E R

Table 3c. Original Variables used by ESS to correct for Weights [(Source: (ESS, 2014)]

GA R - Cross-classification of the gender, age and region.

GAER - Cross-classification of gender, age, education and region.

3.4.3 Population size Weights (PWEIGHT):

Population size weights are used when two or more countries are examined combined. These weights are similar for all persons within country but differ across countries due to different sample sizes. They correct for biasness when combining data from two or more countries or avoid over-representing of the smaller countries at the expense of the larger ones.

Chapter 4. **Initial data exploration**

4.1 Introduction

This chapter focuses on the detailed decisions in respect to the data. It first focuses on the choice of countries as discussed in Section 4.1, which are being analysed, then moves on to a discussion of the main variables included in the study. I then examine the consistency of the variables over time and the recoding necessary. For consistency, in processing all the data it needed to be coded in similar manner. Finally, the chapter provides some initial exploratory data analysis of the important variables of interest.

As previously mentioned in section 2.3, the three countries analysed (the UK, Germany and Sweden) were selected for three main reasons. Firstly, all three countries have been part of the ESS data collection in all rounds, which provides information on temporal trends for more than a decade, Secondly, these countries tend to differ in their immigration history, and their approach to immigration policies. For instance, United Kingdom is mainly associated with post-colonial immigration, whereas Germany and Sweden are predominantly linked with more active recruitment for employment. In terms of policy, Sweden and the UK have historically pursued a very active multiculturalism path, whereas Germany, according to some authors, has followed an extreme ethnicist orientation (Bourhis et al. 1997; Montreuil and Bourhis 2001). As such these data provide a rich sample for understanding differences in individual human value orientations in a timely manner as well as their association with attitudes to immigration. And thirdly, the main focus is examine attitudinal changes in these countries over seven waves focusing on finely graded time trends of data analysis (2002-2014) rather than a large sample cross-national comparison of all countries included in the survey and limited to one or few waves.

This chapter therefore provides an initial look at the data which will be analysed in depth in subsequent chapters. One particular goal of this exploratory analysis was to investigate graphically how attitudes to immigration and how each of the 21 human value items have changed from 2002 – 2014 within each country. The chapter starts off with a discussion of data processing issues, and then proceeds to examine the six attitudinal questions over time. It concludes with the selection of attitudinal questions to be taken forward for more detailed analysis, in Chapter 6.

4.1.1 Data processing

I discussed the ESS data in Section 3.1, and described the main features of the ESS datasets. In brief, the ESS uses a repeated cross-sectional design, where a new sample of respondents respond to a sets of questions every two years. These repeated waves are called rounds in the ESS terminology. We also saw in Section 3.1.1 that not all countries contribute to each wave.

The survey datasets are easily accessed for research purposes. The ESS questionnaires are grouped into two main parts i) core section and a rotating section. Every wave has a core module where core immigration questions have featured, rotated with other modules, which sometimes feature more detailed questions on immigration.

The same questions in rota get replicated approximately every decade, for example, both 2002 and 2014 had immigration as a core module. The specific focus on the immigration questions has been on the attitudes towards different migrant populations.

The immigration module in ESS1 (2002) contains 58 items constructed to evaluate different issues on immigration and asylum topics. Some of the items were repeated in ESS7(2014) and a group of new items were designed to strengthen the measurement of symbolic threat (Billiet and Meuleman, 2007).

The 2002 design of the immigration module is laid out below in Table 4a. It can be seen that a variety of topics are covered, with each latent concept being measured with a variety of questions.

Latent variable	Attitudinal questions
Willingness to allow immigrants to the country	Questions: D4-D9
Evaluation of the consequences of migration	Questions: D25-D31
Support for conditions for allowing immigration	Questions: D10-D17
Attitude towards asylum seekers	Questions: D45-D49
Ethnic threat prejudice	Questions: D18-D24
Cultural homogeneity	Questions: D40-D44

Table 4a. Concepts covered in ESS sweep1 (2002) immigration module

However, the main problem with the detailed modules is that there is a gap of twelve years between the two rotated modules on immigration; moreover some of the questions themselves have changed between sweep 1 and sweep 7 and there is no consistency over time.

Additionally, there is an academic reason to use all seven sweeps of data when looking at change over time. The main advantage of using the whole seven sweeps (2002-2014) is that it gives researchers a better understanding of the trend in the phenomenon studied, especially if the survey questions do not change wording over time. On the other hand, due to financial

restrictions of the survey, the main disadvantage is that the data are limited to having only a small set of questions for immigration.

Ideally, it would be preferred to follow the same respondents over time and through the seven sweeps. This longitudinal design would allow changes within an individual to be examined and analysed. Many social surveys such as the UK Understanding Society Survey, follow this design. However, the ESS methodology does not do this. I have made the decision that the advantages of the ESS (measures on human values and core items on immigration, cross-national, consistent wording on core questions) outweigh the lack of a longitudinal design.

The next sections describe each of the variables examined in this thesis, starting first of all with the explanatory variables (primarily socio-demographic), then the measures on human values, and finishing with a description of the attitudes to immigration variables.

4.1.2 **Explanatory variables**

Explanatory variables selected for the analysis of the attitudes towards immigration correspond to those identified as important in the literature review, and can be grouped into four groups:

Firstly, there are Individual characteristics - age, gender, marital status, education, religion, life satisfaction and a question on happiness;

Secondly, there are two responses on political orientation - a question on 'How interested in politics are they' and their 'position on the left right scale';

Thirdly there are questions of ethnicity - mother's and father's origin, their citizenship and whether they belong to the ethnic minority group.

Finally there is a measure on the economic circumstances of the household (how they feel about their household income). We discuss each of these in turn.

More details of how the variables have been recoded are given in Table 4c. and a brief overview of the process and the rationale behind any particular recoding is given below. Also, in addition, a table of percentages of responses in each category of the explanatory variables is provided.

4.1.3 Recoding of the explanatory variables

Variable *essround* – ‘The ESS round’ – represents calendar time in the analysis.

Table 4b. shows the number of respondents by ESS round. It is possible to see that in overall Germany has the highest number of respondents for the majority sample, totalling 19,562, followed by UK and Sweden with 14,472 and 12,374 respondents respectively. However, for the minority data subset, the UK contained the highest number of respondents (1108), followed by Germany (868) and Sweden (379).

ESS Round	Whole data			Majority			Minority		
	UK	DE	SE	UK	DE	SE	UK	DE	SE
1	2052	2919	2093	1922	2800	1928	127	114	57
2	1897	2870	1948	1761	2745	1899	126	115	42
3	2394	2916	2155	2240	2774	1866	142	126	48
4	2352	2751	1830	2184	2625	1767	162	118	57
5	2422	3031	1497	2225	2897	1441	176	121	45
6	2286	2958	1847	2095	2824	1774	176	133	57
7	2264	3045	1791	2045	2897	1699	199	141	73
Total	15667	20490	13161	14472	19562	12374	1108	868	379

Table 4b. Data distribution over the seven ESS rounds.

Variable *agea* – ‘Age of the respondent’. Respondents that take part in the ESS are of age 15 and above.

I have grouped the age variable into 6 categories as follows: Group 1 includes respondents between the ages of 15-24; Group 2 covers the ages 25-34; Group 3, 35-44; Group 4, 45-54; Group 5, 55-75 and the last group, Group 6 includes those who were stated to be over 76+.

Variable *gndr* – Gender – remained as a binary variable with 1= “Male” and 2 “Female”.

Variable *mar* – “Marital status” had a different labelling over the seven ESS rounds. This was primarily due to the introduction of civil partnership status, and the increasing social phenomenon of stable partnerships. For this reason the variables were merged from variable ‘Marital’ in the ESS1 and ESS2, variable ‘Maritala’ - in ESS3 and ESS4 and variable ‘Marsts’- from ESS5, ESS6 and ESS7. This variable has three categories coded as follows: 1 – Married/CP, 2 – Separated/Divorced/Widowed and 3– Single.

Variable *rlgdgr* – ‘How religious are you?’ – is a Likert scale with 11 levels ranging from 0 “Not at all religious” to 10 “Very religious”. The 11 levels were reduced down to 3 levels, coding 0-4 as 1 ‘Not & Less religious’, 5 to 7 was recoded to 2 ‘Moderately religious’, while, 8-10 were recoded to 3 ‘Rather religious & very religious’ (see Table 4c). This recoding was applied to data from all three countries.

Variable *eduysr* – ‘Years of full time education completed’ – is a little bit more complicated to recode. Since not all the states have the same educational system with the same cut-points between primary and secondary education, this continuous variable was recoded into three categories: First, the first eight years of education were recoded as category ‘primary education’, years from nine to twelve were recoded as “secondary education”, while years 13 and above were recoded as “university education”. This categorization is supported by the frequency distribution also because there are sudden jumps in the level of frequency distributions when it comes to years 8, 12, and 16. This is partly due to the fact that most people who start studying in a school finish it completely. This is important to bear in mind when interpreting the results because category “secondary education” does not mean for example that the person has finished high-school, but it simply means that he/she has attended it.

Variable *stflife* – ‘How satisfied with life as a whole?’ - is a Likert scale with 11 levels ranging from “0 Extremely dissatisfied” to “10 Extremely satisfied”. For all three countries the mode of the categories was to the right of the median, and a much larger frequency of responses belonged to the categories towards “very satisfied”.

For this reason, the categories ‘5 to 7’ was recoded to ‘neither dissatisfied, nor satisfied’ responses. The category ‘Satisfied’ included categories 8 to 10, while the ‘Dissatisfied’ category was formed of the responses 0-4.

Variable *happy* – ‘How happy are you?’ – Initially had 11 categories from ‘Extremely unhappy’ to “Extremely happy”. For all three countries the mode of the categories was to the right of the median, and a much larger frequency of responses belonged to the categories towards “extremely happy”. For this reason, the middle categories ‘5 to 7’ ‘neither happy, nor unhappy’ responses, was recoded as ‘Neutral’ The dummy variable ‘Happy’ included categories 8 to 10, while the ‘Unhappy’ was created including 0 to 4 group of responses

Variable *polintr* – ‘How interested in politics?’- is a Likert scale with 4 levels ranging from “1=Very interested”, “2=Quite interested”, “3=Hardly interested” and “4=Not very interested”. The categories “Refusal”, “Don’t know” and “No answer” were counted as missing. A similar recoding has been used in all three countries. The categories ‘1 and 2’ was recoded as “Very interested”. While the categories ‘Hardly interested’ and ‘Not at all interested’ were kept unchanged.

Variable *lrscale* – ‘Placement on political left-right scale’ – is a Likert scale with 11 levels ranging from 0=Left to 10=Right. As a matter of consistency, the same recoding for all three countries was done. The middle category 5 was kept untouched as “Neutral”, categories 0 to 4 on the scale have been grouped as “Left” and 6 to 10 have been grouped as “Right”.

Variable *ctzcntr* – ‘Citizen of the country’ was kept as a binary variable (Yes=1 and No=2). Other categories “Refusal”, “Don’t know” and “No answer” were counted as missing.

Variable *factnr* – ‘Father born in (survey) country’ - was kept as a binary variable (Yes=1 and No=2). Other categories “Refusal”, “Don’t know” and “No answer” were counted as missing. Most of the respondents have selected ‘Yes’ in all the three countries.

Variable *moctnr* – ‘Mother born in (survey) country’ – this variable is kept as a binary variable (Yes=1 and No=2). Other categories “Refusal”, “Don’t know” and “No answer” were counted as missing.

Variable *blgetmg*- ‘Belong to ethnic minority’ -is a binary variable with (Yes=1 and No=2). Other categories have been counted as missing. This is a self –defined question as to whether the respondents feel they are part of the ethnic minority of the survey country, and will have little relationship whether or not they were born in that country. For the categories “Yes” and “No” dummy variables have been created to allow for easy subset selection. For example, those that responded “Yes” I have recoded into “Minority” with binary responses (Yes\No), similarly, a dummy variable was created for the “NO” responses to “Majority” which has binary responses (Yes\No). Only a small portion of the respondents have responded ‘Yes’ across the countries. Suggesting smaller sample for the minority as shown in Table 4b.

Variable *hincfel* – ‘Feeling about *household income*’ – is measured by the subjective rating of how respondents feel regarding their ability to live on the combined household income obtaining at present. The main categories for this variable were kept as provided from the original coding in ESS. ‘Living comfortably on present income’ =1, ‘Coping on present income’ = 2, ‘Difficult to cope on present income’ =3, ‘Very difficult to cope on present income’ =4. Categories “Refusal”, “Don’t know” and “No answer “were counted as missing.

Table 4c. provides a summary of the above information in tabular form, showing the recoding that were applied to the ESS data,

Summary table of the explanatory variables		
Variable	ESS code	Amended code
Age of the respondent, calculated (agea)	15y-123y	1=<'24y', 2='25y-34y', 3='35y-44y', 4='45y-54y', 5='55y-75y', 6=>'76y+
Gender (gndr)	1=Male, 2=Female	1='Male', 2='Female'
Marital status (marital,maritala,marsts)	Joint*	1='Married/CP', 2='Separated/divorced/widowed', 9='Single'
How religious are you (rlgdgr)	0='Not religious at all',...,10='Very religious'	1='Not religious & Weakly', 2='Moderately religious', 3='Rather religious and Very religious'
Years of full time education completed (eduyrs)	0 years of education, ..., 43 years of education	0-8y= 1-'Primary education', 9-12y=2-'Secondary education', 13-43 =3-'University education'
How satisfied with life as a whole (stflife)	0='Extremely dissatisfied', ..., 10='Extremely satisfied'	1='Dissatisfied', 2='Neither dissatisfied, nor satisfied', 3='Satisfied'
How happy are you (happy)	0='Extremely unhappy', ..., 10='Extremely happy'	1='Unhappy', 2='neither happy, nor unhappy', 3='Happy'
Political interest (polintr)	1='Very interested', 2='Quite interested', 3='Hardly interested', 4='Not at all interested'	1='Very interested', 2='hardly interested', 3='Not at all interested'
Left right scale (lrscale)	0='Left', ..., 10='Right'	1='Left', 2='Neutral', 3='Right'
Citizen of Country (ctzcntr)	1='Yes', 2='No'	1='Yes', 2='No'
Father born in a country (facntr)	1='Yes', 2='No'	1='Yes', 2='No'
Mother born in a country (mocntr)	1='Yes', 2='No'	1='Yes', 2='No'
Belong to ethnic minority group (blgetmg)	1='Yes', 2='No'	1='Yes', 2='No'
Feeling about household's income feel (hincfel)	1='Living comfortable on present income', 2='coping on present income', 3='Difficult on present income', 4='Very difficult on present income'	1='Living comfortable on present income', 2='coping on present income', 3='Difficult on present income', 4='Very difficult on present income'

Table 4c. Pre-processing operations for the explanatory variables

Table 4d. shows summary statistics for the explanatory variables for each of the three countries. From Table 4d. it can be noted that there are differences in the distribution of the categories between the countries.

Compared to Germany and Sweden, the UK is characterised with highest proportion of respondents in the following categories of the explanatory variables: married, secondary education, neither dissatisfied & nor satisfied, those that fall between left and right orientation, not at all interested in politics, father not born in the UK, those that belong to minority ethnic group and the those that feel that they are having difficulties with their present income.

In addition, for Germany categories of the variables with the highest proportion of the responses are: male respondents, separated/ divorced/ widowed, university education, moderately and very religious, dissatisfied and the neither dissatisfied/nor satisfied, unhappy, those that have left wing political orientation, very interested in politics, not having a citizenship and coping in the present income.

Sweden, compared to UK and Germany, was distinguished with the highest proportions in the following categories: single respondents, female, not & less religious, satisfied with life, happy in life, respondents having right wing orientation, very interested in politics, highest number of respondents with citizenship and the highest proportion of living comfortable with the present income.

Interestingly, the age groups had very similar proportions across the three countries.

The list of the explanatory variables and the percentages in each category

	UK	DE	SWE
Individual characteristics			
Gender			
Female	48.6%	48.5%	49.5%
Male	51.4%	51.5%	50.5%
Age			
Group1 Age- 15-24Y	15.3%	14.4%	15.3%
Group2 Age- 25-34Y	16.2%	12.8%	15.3%
Group 3 Age- 35-44Y	17.5%	16.9%	16.5%
Group4 Age- 45-54Y	17.1%	18.8%	15.9%
Group5 Age- 55-75Y	26.6%	29.3%	29.9%
Group6 Age- 76+Y	7.2%	7.7%	7.2%
Marital status			
Married/CP	41.6%	39.9%	33.5%
Separated/Divorced/Widowed	20.7%	22%	19.4%
Single	37.8%	38.1%	47.1%
Education			
Primary education	2.7%	9.5%	10.7%
Secondary education	48.7%	39.6%	43.3%
University education	48.6%	50.9%	46%
How religious are you			
Not & Less religious	53.5%	46.3%	61.7%
Moderate	32.2%	37.0%	29.2%
Rather Religious and Very Religious	14.3%	16.6%	9.2%
How satisfied with life as a whole			
Dissatisfied	10.7%	12.6%	4.7%
Neither dissatisfied, nor satisfied	37.0%	34.7%	27.1%
Satisfied	52.3%	52.7%	68.2%
How happy are you			
Unhappy	7.1%	8.2%	3.5%
Neither happy, nor unhappy	33.1%	36.3%	28.3%
Happy	59.8%	55.5%	68.2%
Political orientation			
Left or Right scale			
Left	26.7%	38.7%	34.8%
Middle	43.9%	38.4%	22.8%
Right	29.4%	22.9%	42.5%
Political interest			
Very interested	52.4%	57.7%	60.2%
Hardly interested	28.3%	34.2%	30.9%
Not at all interested	19.3%	8.1%	8.9%
Ethnicity			
Citizen of country			
Yes	95.1%	94.5%	96.4%
No	4.9%	5.5%	3.6%
Father born in country			
Yes	82.3%	83.6%	83.4%
No	17.7%	16.4%	16.6%
Mother born in country			
Yes	83.1%	85.1%	82.9%
No	16.9%	14.9%	17.1%
Belong to ethnic minority			
No (majority)	91.3%	94.7%	94.7%
Yes (minority)	8.7%	5.3%	5.3%
Household characteristics			
Household income feel			
Living comfortably on a present income	39.2%	30.4%	57.8%
Coping on present income	44.0%	53.7%	32.7%
Difficult on present income	13.2%	12%	7.3%
Very difficult on the present income	3.5%	3.9%	2%

Table 4d. Initial exploration of explanatory variables.

The use of age, religiosity etc. as categorical allows non-linearity to be detected. For example it might be only the oldest age group that shows a difference in attitudes to immigration. Treating age as linear would lose this information therefore the variables were treated as categorical.

4.2 Human values

I now turn to an exploration of the 21 human value items before analysing the effect of the human value items and the constructs of the human values (standardised values and the unstandardized) as predictors on the attitudes towards immigration in Chapter 6.

Within the ESS each respondent is asked a set of portraying questions or items representing different aspects of human values and describing a person with a particular characteristic, for example in measuring the self-direction value: “ Thinking of new ideas and being creative is important to him. He likes to do things in his own original way”’. For each portraying question, respondents answer the question ” How much is this person like you?” (see Appendix A).

They select one of the six response categories available: 1 very much like me, 2 like me, 3=somewhat like me, 4=a little like me, 5=not like me, and 6=not like me at all. According to Schwartz, this method captures the values of respondents for whom self-direction values are important without explicitly highlighting human values as part of the investigation.

The ten basic human values are intended to include the core values found in different cultures around the world.

For each of the ten human values, only a small number of items have been used to measure the human value. For example: Universalism is measured using three sub-components including: equality, protecting the environment and social justice. All other values in ESS are measured using two items. More details on human value dimensions and items measured can be found in Chapter 2.

Schwartz (2008) suggests standardising of the values as explained in Section 2.4.2 before analysis. The standardisation of the value items was performed following the ESS published

guideline. Briefly, I followed the following steps: 1) Computed scores for the 10 values by taking the means of the items that index it (as in Table 4e.), (2) Computed the centre mean that included items 1 to 21. Then subtracted the individual means of each human value from the centre mean.

For example: Centre Mean = Mean (item1 to item21), Universalism Mean= Mean (item3, item8, item19) – Centre Mean

Value	Index
Conformity	7,16
Tradition	9,20
Benevolence	12,18
Universalism	3,8,19
Self-direction	1,11
Stimulation	6,15
Hedonism	10,21
Achievment	4,13
Power	2,17
Security	5,14

Table 4e. Ten human values and item indexes assigned to them.

4.2.1 **Exploration of the human values items over time for the three countries**

I explore the human values data in a series of time series plots of the mean responses, one for each human value item, superimposing the series of the three countries on the same plot. Each individual plot allows me to assess both the stability of the response over time (do the plots show an increase or a decrease over time) and differences in the human value items means between countries. Looking at the 21 plots together allows one to look at differences in the mean levels between items. We examine the response for the ethnic majority and ethnic minority populations separately (as defined by the variable blgetmg).

In more detail, in each plot the mean scores of each of the 21 human value items are plotted for the United Kingdom, Germany and Sweden.

The red line represents the UK mean scores, the black line presents the means for Germany and the scores for Sweden are shown in the blue line. The y-axis is shown as reversed, so that

means closer to “vary much like me” are higher in the plot than means more towards “not like me at all”

To visualize the changes I have used the unstandardised raw scores as extracted from the items after removing the missing values.

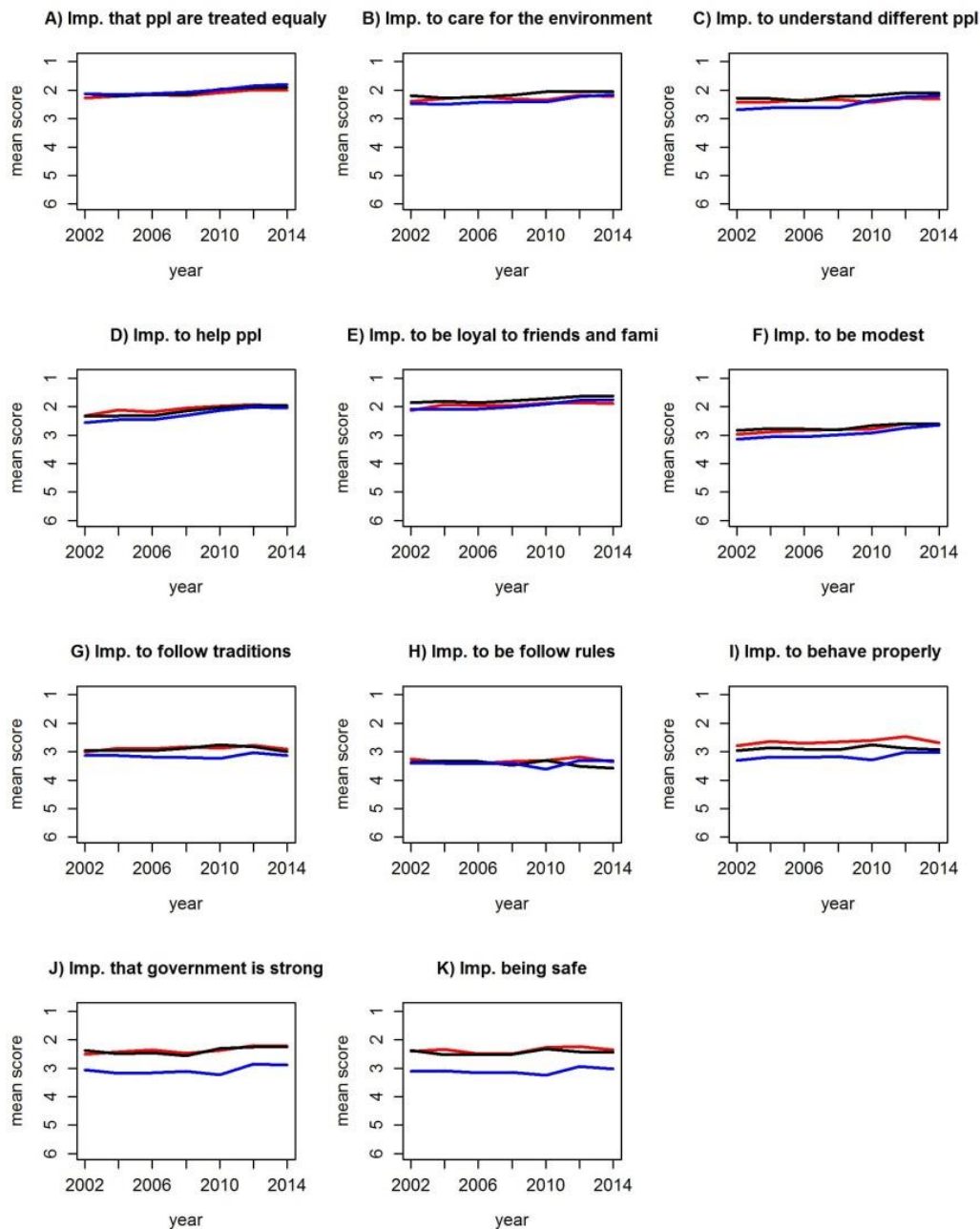


Figure 4a. Time series plots for the 21 items for the majority population in each country.

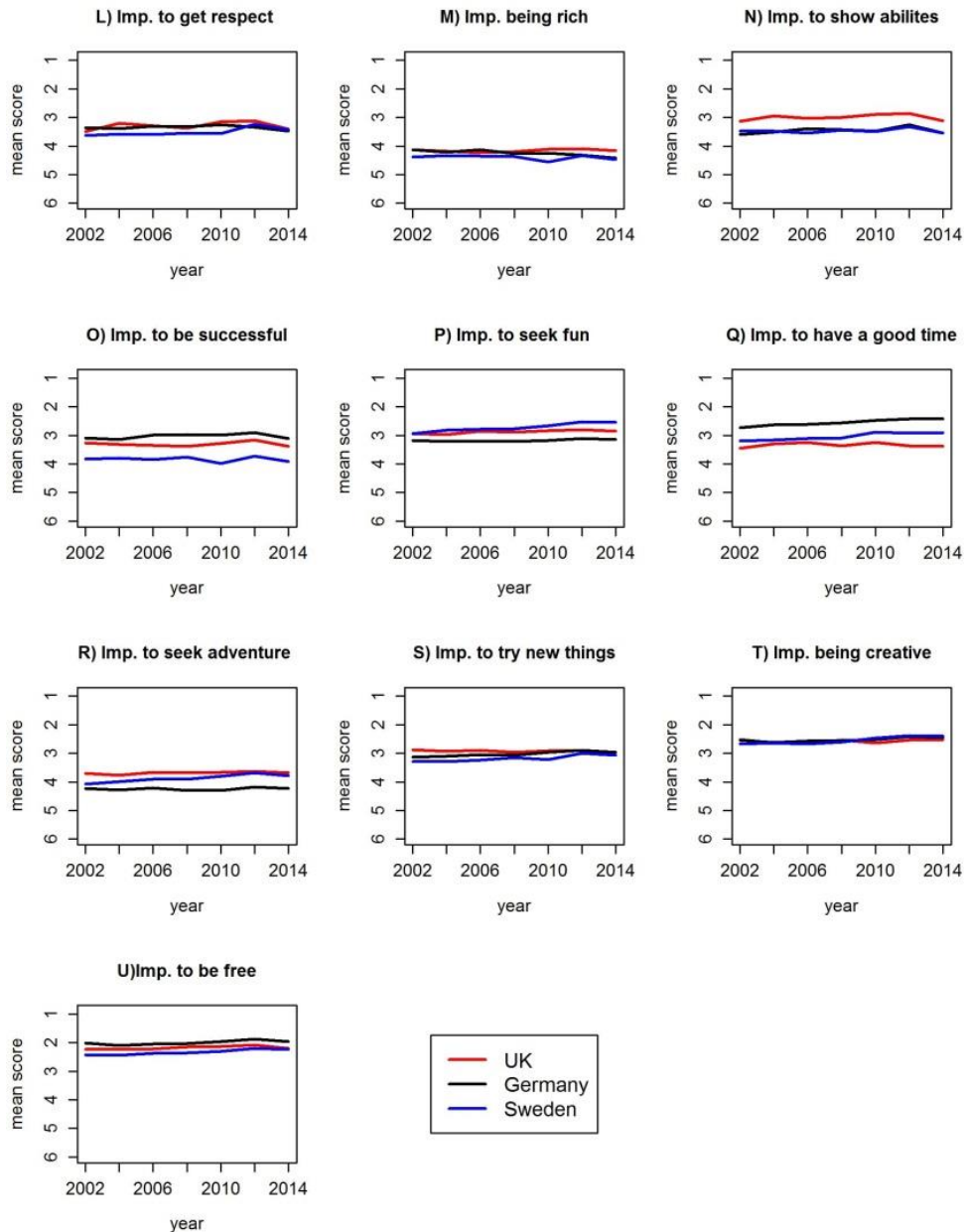


Figure 4a. Time series plots for the 21 items for the majority population in each country (continued).

The graphs in the first half of Figure 4a, ordered A - K represent the eleven items of human values which are ordered in the format that represents Schwartz's circle of human value orientation and come from the right side of his diagram. Value items labelled from A - E in Figure 4a, represent items from universalism (A to C) and benevolence (D and E) of the dimension *Self-Transcendence*; Value items F - K represent items from tradition (F and G), conformity (H and I) and security (J and K) both contributing to the dimension *Conservation*.

The second half of Figure 4a. represents value items from the left side of Schwartz's diagram (L to U). The graphs represent items from power(L and M), achievement(N and O) both from the dimension self-enhancement, stimulation (R and S) and self-direction (T and U) both from the dimension (openness to change). The hedonism value (P and Q) is split with P contributing to the self-enhancement dimension whereas Q contributes to the openness to change dimension.

In the first part of Figure 4a. the items measuring tradition, following rules, important to behave properly, having a strong government and being safe have mean scores more towards the top of the graph, meaning that these items are thought to be less like the respondents.

Respondents from the three countries seem to follow similar patterns over time on most items from the upper right side of the circle relating to Self-Transcendence; the lower right part of the circle however shows exceptions where countries appear to differentiate more in the mean responses. For instance, for the graphs G, I, J and K which represent tradition, conformity and security, Swedish and German respondents have lower scores graphically compared to the UK, suggesting that UK respondents profile themselves as more conservative.

Data from the second half of Figure 4a (continued) contains the items from the left side of the Schwartz's circle of values. It is possible to see the items that have scored the highest scores graphically ("most like me"): that people get treated equally, to care for the environment, to understand others, to help people, to be loyal to friends and family and to be modest in life. In contrast, items with lower responses graphically include getting respect, being rich, showing abilities, to be successful and important to seek adventure in life. In terms of differences between countries, there is an interesting pattern of response on the items of achievement (N and O) where there is a clear separation in trend lines between the UK and Swedish responses with the UK showing higher scores graphically for the item 'important to be successful'. In contrast, German respondents show the highest score graphically in the item 'important to be successful', but are more relaxed in how they perceive showing abilities with similar trends to Swedish respondents over time.

In addition, German respondents score the lowest graphically in "important to seek adventure in life" compared to the other two countries.

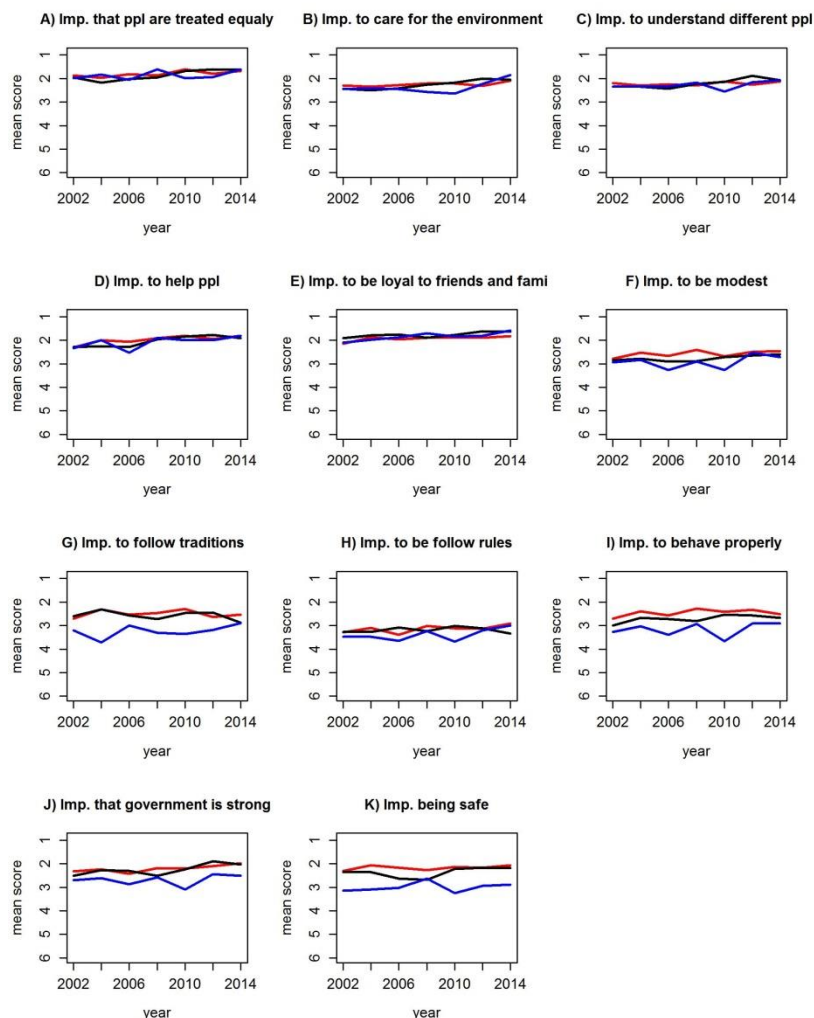
For the remaining items in this Figure that are little to no distinctive differences between countries can be seen in items that measure self-direction such as important being creative and be free followed by important to 'try new things in life' and 'have a good time' which measure stimulation and hedonism values respectively. However, some distinction between countries

can be seen ‘important to have a good time in life’ with Germany showing the highest mean scores followed by Sweden.

This preliminary analysis sheds light on general similarities and differences between countries for the majority population, but further analysis is a required to further create more specific profiles for the respondents.

I now consider Figure 4b, which shows a similar set of plots, but this time for the minority population in each country.

As before, the red line represents the UK mean scores, the black line represents the means for Germany and the scores for Sweden are represented in blue.



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Figure 4b. Time series plots for the 21 items for the minority population in each country

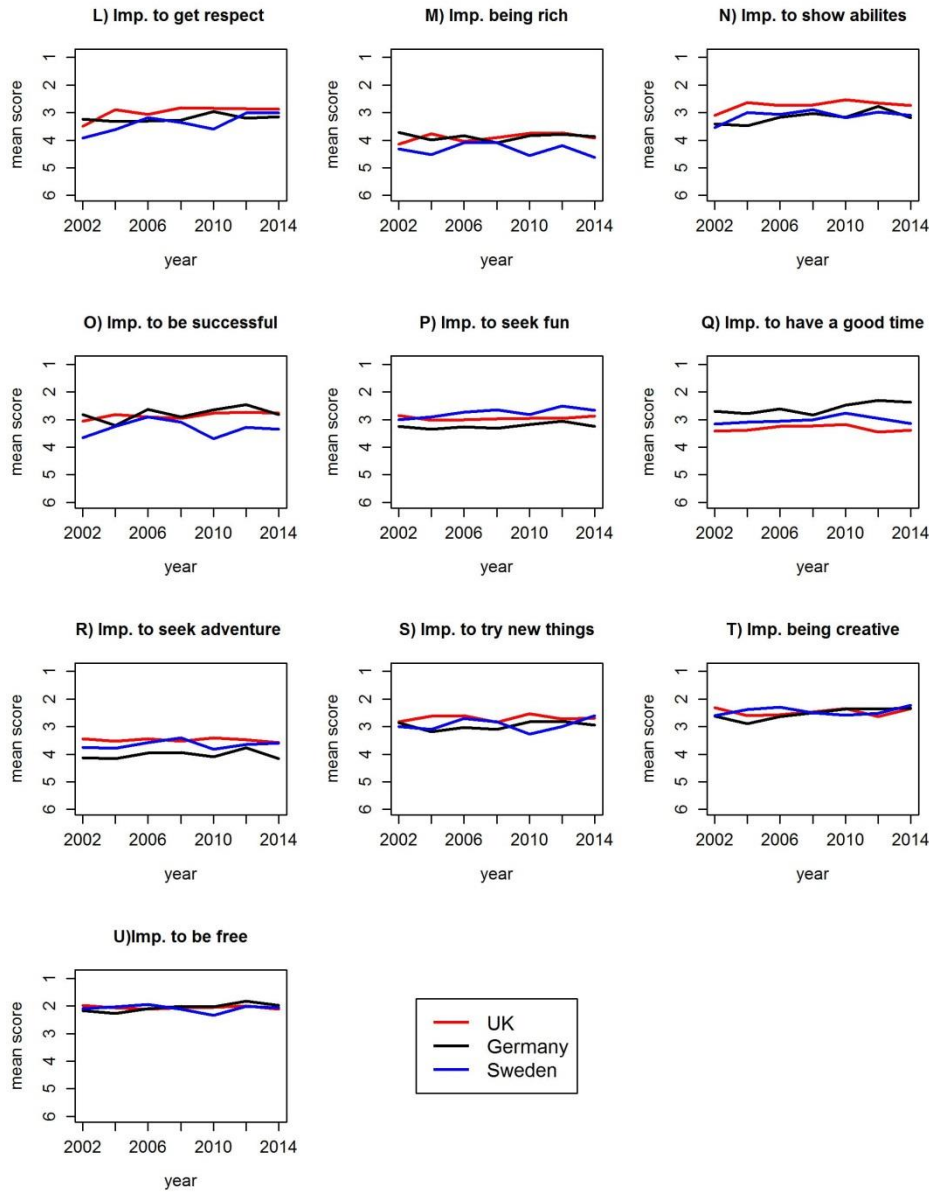


Figure 4b. Time series plots for the 21 items for the minority population in each country (continued)

The human value items that show the least change amongst the minorities in the UK, Germany and Sweden over time are the items of Universalism (A-C), items of Benevolence (D and E),

Items that have low mean scores graphically (a mean score of 3 to 6) among the minorities in the three countries were : important being rich, important to get respect from others, important to seek adventure, important to be successful, important to try new things, important to follow rules, important to behave properly.

Items that show country differences in how their minority responses were: 'important to follow traditions', 'important to behave properly', 'important that government is strong' and 'important being safe'.

There are some items that appear to distinguish the mean responses in the three countries. The UK score the highest graphically compared to Germany and Sweden on the items 'important to be modest', 'important to behave properly', 'important being safe', 'important to get respect', and 'important to show abilities'. Whereas, the lowest score graphically (towards not like me at all) amongst the UK minority was captured on the hedonism item 'important to have a good time'.

In Germany there also appears to be an interesting feature in the last round of 2014. Some items from the Conservation dimension (G and H) seem to decrease graphically, this might indicate that minorities are shifting more towards the values (hedonism, stimulation and self-direction) of the dimension Openness to change although this might be a quirk of the 2014 sample.

Minorities in Sweden follow similar trends to German minorities in most value items, except for the items from the Security dimension ('important that government is strong' and 'important being safe') and Power ('important to get respect' and 'important being rich').

In summary therefore there is little evidence of changes in human values over time, with the exception perhaps of items 'important to follow traditions', 'important to behave properly', 'important that government is strong' and 'important being safe'. There is however evidence that all three countries seem to prefer the items focusing on universalism and transcendence to others.

4.3 Attitudes

According to the Eurobarometer Report on Public Opinion (Spring 2016), immigration and terrorism are seen as the two most important issues facing the EU. The report shows that immigration as a top concern increased by 20 points to 58% between 2013 and 2015, declining slightly to 48% in 2016. Terrorism as an issue continues to increase, and is named as an issue by 39% of the survey respondents in 2016. These issues have replaced the traditional concerns of the economic situation and unemployment.

Given that immigration is now one of the two top main concerns in the EU countries this report provides a strong indication that studies on immigration are very relevant to EU. In particular, this thesis aims to provide further understanding of the attitudes amongst the selected countries in order to identify the factors that contribute to positive and negative attitudes towards immigrants. The three countries of the UK, Germany and Sweden were selected for the following reasons: the UK and Germany were selected because they are the top two countries with the highest immigration inflow in the EU, whereas Sweden lies within the top ten but also has the most progressive immigration policies amongst all the EU countries. In addition, the three countries have had different historical backgrounds of immigration, have followed different integration policies, and have been part of the ESS data collection in all rounds. This will give more insights on how level of immigration, their background and government policies have shaped attitudes to immigration with time.

The European Social Survey offers very robust data on immigration related opinions for more than 16 years consistently. I start by investigating six attitudinal questions that have been part of the survey in each of the seven waves from 2002 to 2014. These six questions are a subset of the detailed questions on immigration in the 2002 survey already presented in Table 4.a, and are listed in Table 4f. The original 2002 questions covered all six latent dimensions of attitudes to immigration (Billiet and Meuleman, 2007) ; however the subset of questions repeated sweep by sweep cover only the first two latent dimensions.

The first set of attitudinal questions [I-III] measure the latent variable ‘Willingness to allow immigrants to the country’ Billiet and Meuleman (2007) have a common response scale as follows : 1) Allow many; 2) Allow some; 3) Allow few; 4) Allow none.

The remaining three questions [IV-VI] are concerned with the latent variable ‘Evaluation of the consequences of migration’ and have 11 point Likert scales on a scale from 0 (bad) to 10 (good). Thus, for example question V “Would you say that [your country’s] cultural life is generally undermined or enriched by people coming to live here from other countries?” has the response scale with endpoints ‘0’ representing ‘cultural life undermined’ and the scale ‘10’ represents ‘cultural life enriched’; See Appendix B.

Latent variable	Attitudinal question	ESS variable name and 2002 question number.
Willingness to allow immigrants to the country	I. To what extent do you think [country] should allow people of the same race or ethnic group as most [country]'s people to come and live here?	<i>Imsmetn(D4)(B29)</i>
	II. How about people of a different race or ethnic group from most [members of your country]?	<i>Imdfetn(D5)(B30)</i>
	III. How about people from the poorer countries outside Europe?	<i>Impcntr(D7)(B31)</i>
Evaluation of the consequences of migration	IV. Would you say it is generally bad or good for [your country's] economy that people come to live here from other countries?	<i>Imbgeco (D27)(B32)</i>
	V. Would you say that [your country's] cultural life is generally undermined or enriched by people coming to live here from other countries?	<i>Imueclt (D28)(B33)</i>
	VI. Is [your country] made a worse or a better place to live by people coming to live here from other countries?	<i>Imwbcnt (D29)(B34)</i>

Note: Question coding in D were used in 2002 and the ones in B are used in later rounds.

Table 4f. Latent variables and attitudinal questions assigned to them

4.3.1 Changes over time (2002 – 2014) in 3 countries in attitudes to immigration

First of all, I explored the broad pattern of the mean responses over time for the selected six attitudinal questions in the three selected countries. This is presented in Figure 4.c. I have already discussed the response scales in section 4.3, but it is important to notice that a low score for the first three questions (I-III) indicates a positive attitude to immigration, whereas a low score for the last three questions (IV-VI) indicates a negative attitude to immigration. I have therefore reversed the y-axis scale for the first three questions in Figure 4.c so that 1 appears above 4.

In general, questions relating to the ‘Willingness to allow immigrants to the country’ latent variable (presented in the first row of the Figure) show very similar patterns of responses in all the three questions over time.

Swedish responses show little change over time (2002 – 2014) and responding more positively i.e. more in favour of immigrants (mean scores, blue line) than Germany and the UK.

The UK responses also show very little change over time, but respond most negatively to all three questions. German responses (black line) are between Sweden and UK, but interestingly show change over time. In the response to the question “Allowing immigrants with the same ethnic/race?” the German respondents starting in 2002 with mean scores just above the UK respondents but become more positive after 2006 and reach the same positive level as the Swedish respondents by 2010. The mean scores on other two questions related to ‘Allowing immigrants of the different ethnic/race’ and ‘Allowing immigrants from poorer countries’ show a similar trajectory but with the pre-2006 level lower, and with the trend lines never reaching the positive levels of Sweden post-2006. This suggests that when comparing these three countries, regardless of the specifics of the immigrants’ characteristics, UK respondents are the least in favour of any immigration. On the other hand, Swedish data show the most positive attitude to immigrants regardless of characteristics. Germany remains in the middle and appears to be more sensitive to changes in attitudes to immigration over time. Further data analysis on this thesis will shed more light on these findings.

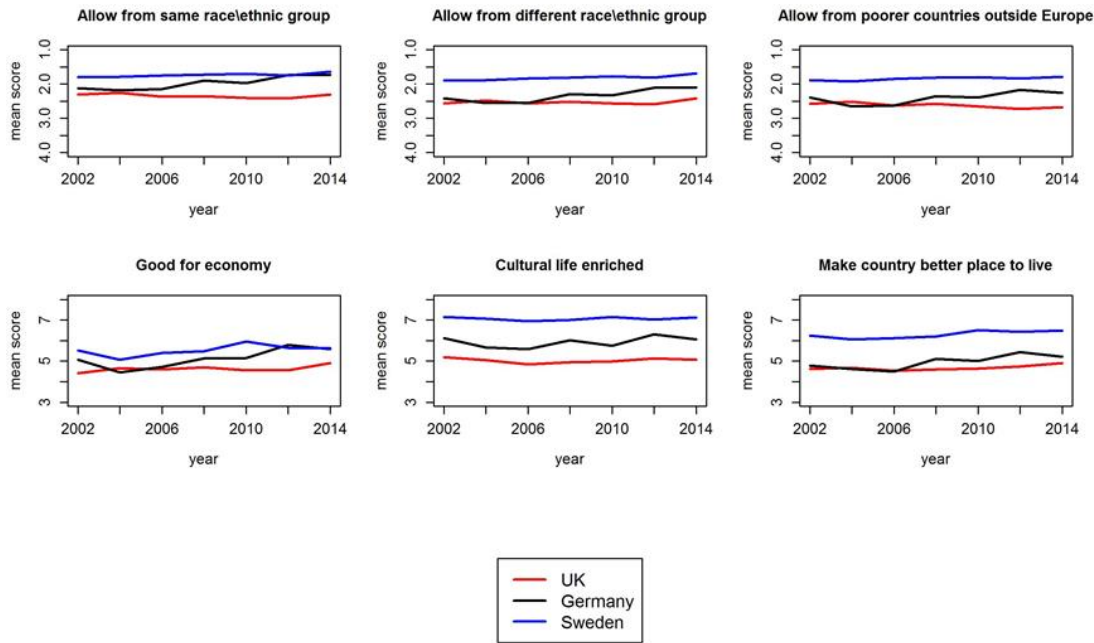


Figure 4c. Trends of the mean responses for the six attitudinal questions (whole data)

The second row of Figure 4c. shows the responses to the latent variable ‘Evaluation of the consequences of migration’. Similar to the first row, all countries follow a similar pattern of responses, with Sweden being the most positive towards opinions on immigration impacts on the economy, followed by Germany and UK. Interestingly, for the question “if the immigration is bad or good for the economy”, German time trends show a fluctuation pattern; in 2002 mean values are between the UK and Sweden but by 2004, two years later, the mean values drop down and converge with UK. Following on from this the German mean scores then keep increasing towards a more positive response until they reach the level of Sweden and a clear convergence is achieved by 2014. In addition, in the responses to the question of whether the cultural life is enriched by immigration, a clear separation of the countries over the whole period can be observed. In the third question, Germany and UK follow very similar trends overall, with Sweden clearly separated and more in favour of the idea that immigration makes the country better.

There is thus a clear difference in the pattern of responses when respondents evaluate the consequences of migration amongst the three countries. The lowest mean scores were shown for the question regarding economic benefit as compared to questions concerning the effects of immigration on cultural life and whether immigration makes the country better. This

suggests that respondents in all three countries think that there is less of a positive impact of immigration on the economy and more of a positive effect of immigration on cultural life.

The focus of the theses is on varying attitudes to immigration, examining two issues, attitudes to people of a different ethnic group and whether the country is made worse or better place to live by people coming to live from other countries. I considered it important to look at changes in attitudes over a finely graded time axis and so I chose to use the responses to the above two questions measured every two years over using more attitudinal questions but only having access to data from two sweeps.

4.3.2 Correlation analysis of the attitudinal questions

The next step is to examine the association between the six attitudinal variables using correlations.

The three most popular coefficients are Pearson's coefficient (r), Spearman's rho rank correlation coefficient (r_s), and Kendall's tau (τ). The Pearson correlation has the assumption of needing the two variables to be bivariate normally distributed,

Kendall's tau coefficient (τ) in contrast, is a non-parametric test that measures the strength of the association between two variables that have rank distribution. It is designed to measure the ordinal dependence between two measured variables.

The Spearman's rho rank correlation coefficient (r_s) – is a non-parametric test that measures the degree of ordinal association between two variables. It requires that the data must be at least ordinal and one variable must be monotonically related to the other variable. (Spearman, 1987).

I have used the Spearman rho rank correlation method for calculating the correlation coefficients on the six attitudinal questions due to the flexibility of the method in handling the data, the prior assumptions required and the wide application of this method in social science where the order of the questions investigated are ranked.

The coefficient can be calculated with the formula below:

$$r_s = 1 - \frac{6 \sum_{i=1}^n d_i^2}{n(n^2-1)}$$

r_s – Spearman's rank correlation coefficient

d_i – represents the difference in ranks given to the values of the variable for each item of the particular data

n – number of values in the data set

The interpretation of the correlation coefficients can verbally be described according to the strength of the association to the absolute value of r_s :

- **0.00 - 0.19 “very weak”**
- **0.20 - 0.39 “weak”**
- **0.40 - 0.59 “moderate”**
- **0.60 - 0.79 “strong”**
- **0.80 - 1.0 “very strong”**

The R package `corrplot` (Wei and Simko, 2013) has been used to visualize the correlation matrix for the six attitudinal questions. This package offers seven different visualization methods; I am using `shade` and `colour`. The density of the shading and the colour represent the correlation coefficient, with blue indicating a positive correlation and red a negative correlation.

The scales for the first group of questions relating to the concept of ‘Willingness to allow migration’ were kept unchanged, whereas, scales for the questions relating the ‘Evaluation of the consequences from the migration’ were reverse-coded in order to avoid the negative correlation coefficients.

The values of the Spearman rank correlation matrix are shown in Figures 4d (1)–(3). In all three matrices, it is possible to observe a clustering of the six attitudinal questions into two groups defined by values more than 0.5 (questions {I-III} and questions {IV-VI}) and less than 0.5 (all other correlations). This is noted in both for the majority (A) and the minority (B) samples. This confirms the latent structure of the data, and we proceed in the next section to a principal components analysis of the three datasets.

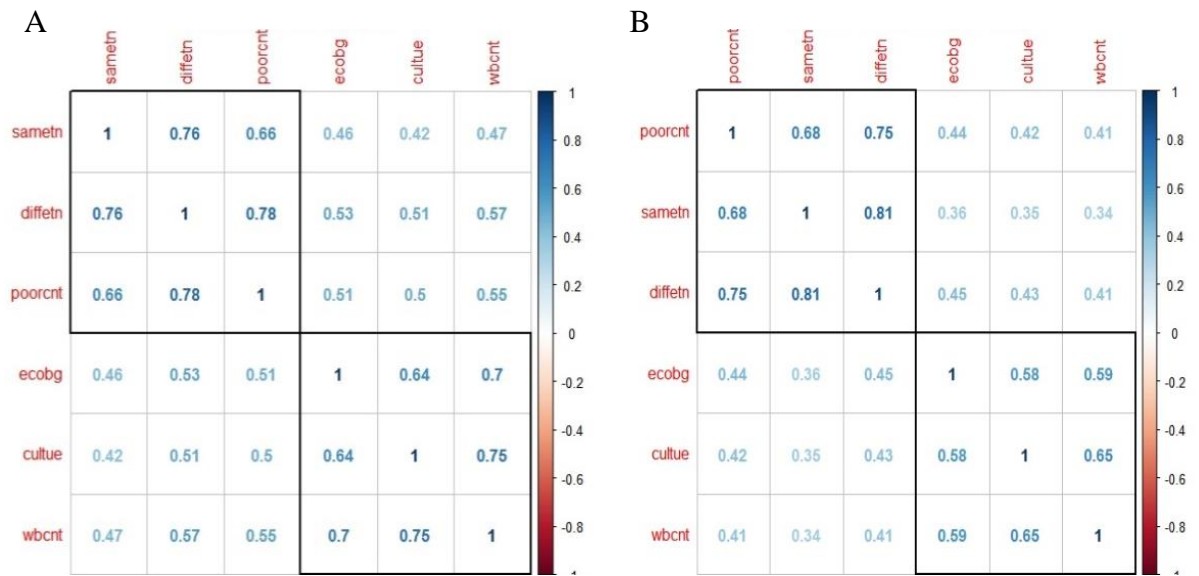


Figure 4d1. Correlation matrix of UK majority (A) and minority (B) responses for the six attitudinal questions

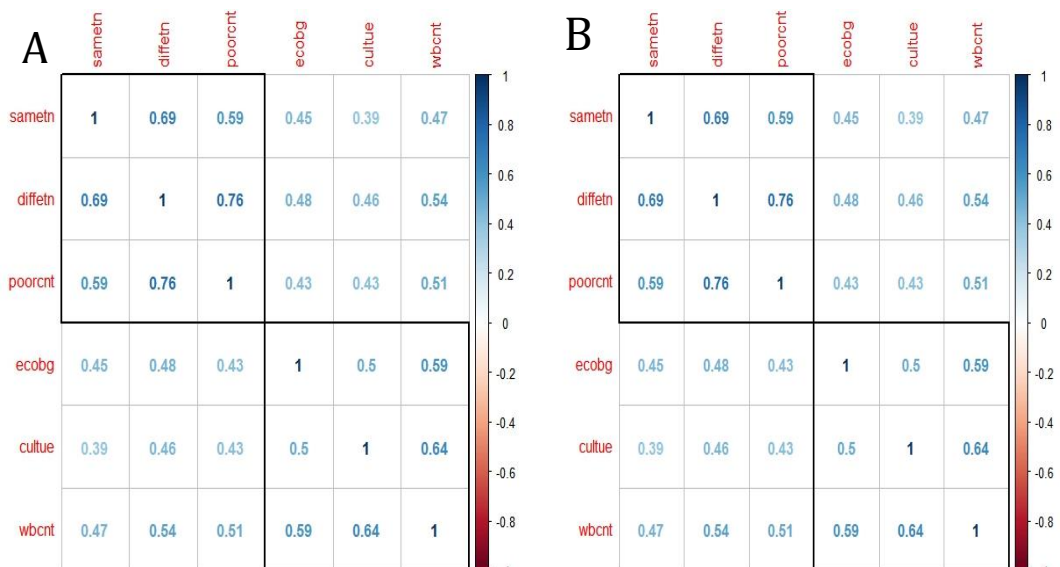


Figure 4d2. Correlation matrix of German majority (A) and minority (B) responses for the six attitudinal questions

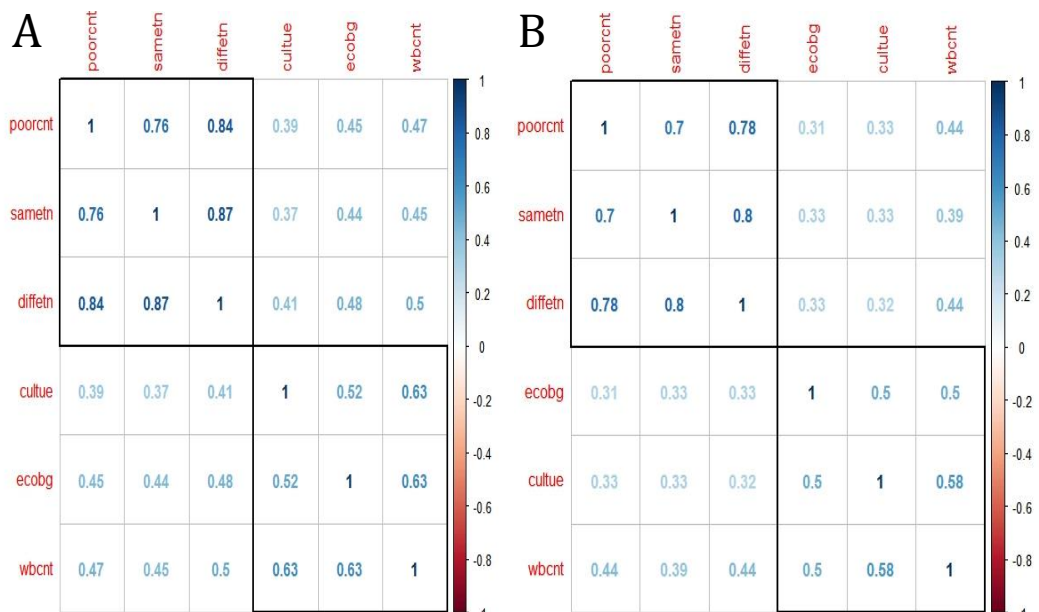


Figure 4d3. Correlation matrix of Sweden majority (A) and minority (B) responses for the six attitudinal questions

4.3.3 Principal Components Factor Analysis (PCFA)

The results from the correlation matrix of the attitudinal questions shows that all questions are correlated within their own latent variable with $r_s > 0.5$. Therefore, running a principal components analysis was carried out for further exploration. The analysis for the majority samples and minority in UK, Germany and Sweden were run independently.

The reason of conducting this analysis is to avoid multi-collinearity where the items explain essentially the same concept.

Using Principal Component Factor Analysis (PCFA) followed by the Varimax rotational method it can be seen in Table 4g. that the two main factors for each of the six analyses explain more than 70% of the variation. Also, from the Table 4g. it can be seen that the factor loadings show a clear distinction between the first three question items that load highly on the first factor, and the last three question items load highly on the second factor.

In terms of the table of the various dimensions of attitudes to immigration, the first three items all represent the ‘Willingness to allow migration’ concept and the last three represent the concept of ‘Evaluation of the consequences of migration’.

In terms of diagnostics, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy are all 0.807 or greater which is considerably higher than 0.5, indicating that the selected sample is good for this type of analysis and the variables selected can be factored. Also, the Bartlett’s test of sphericity is highly significant at $p=0.001$, which, again suggests the data meet the criteria for proceeding with a principal components analysis.

Attitudes towards immigration (PCFA - varimax rotation)												
Attitudinal questions	UK				DE				SE			
	Majority N=13050		Minority N=872		Majority N= 16488		Minority N=637		Majority N= 9566		Minority N= 241	
	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
lmsmetn	0.871	0.225	0.893	0.186	0.864	0.321	0.879	0.246	0.902	0.311	0.895	0.226
lmdfetr	0.868	0.345	0.872	0.315	0.829	0.288	0.806	0.223	0.890	0.24	0.855	0.272
lmpcntr	0.820	0.341	0.811	0.315	0.813	0.268	0.768	0.279	0.858	0.292	0.849	0.23
lmbgeco	0.262	0.863	0.213	0.855	0.223	0.845	0.185	0.841	0.303	0.836	0.205	0.829
lmueclt	0.317	0.862	0.26	0.835	0.331	0.823	0.286	0.772	0.202	0.834	0.2	0.828
lmwbcnt	0.306	0.818	0.3	0.804	0.315	0.76	0.266	0.765	0.286	0.789	0.298	0.811
%explained variance	81.5%		78.77%		76.35%		71.25%		80.24%		77.22%	
KMO	0.848		0.836		0.845		0.807		0.83		0.82	

Table 4g. PCFA of attitudes towards immigration in UK, Germany (DE) and Sweden (SE)

4.4 Summary of results

Results using Principal Component Factor Analysis (PCFA) on attitudes to immigration depict the two main factors for each of the six analyses (Majority and minority in the three countries) that explain more than 70% of the variation. The factor loadings show a clear distinction between the first three items that load highly on the first factor, and the last three items load highly on the second factor.

There is therefore a choice to be made. One method of analysis would seek to construct a latent variable from the first three question items and a second latent variable from the second three question items, by summing the responses or producing a weighted sum. The alternative method is to select one question from each of the two question sets to represent the latent variable. I have chosen the second method, as it is important when reporting on the results to focus on the specific wording of a question rather than a generic latent variable score. This approach is supported by the time series plots, which show different trend lines, especially for the second group of questions.

Thus, using the results from the correlation analysis and the principal component factor analyses, the selection is as follows:

The *first* latent variable ‘Willingness to allow migration’ is represented by the question item ‘*Allow more immigrants of different ethnic/race? (IMDFETN)*’ due to its high factor loading amongst the six analyses and,

The *second* latent variable ‘Evaluation of the consequences of migration’ will be represented by the question ‘*Is [your country] made a worse or a better place to live by people coming to live here from other countries? (IMWBCNT)*’. This choice is made as these question items are more generic and less specific.

To summarize, the focus of the theses is on varying attitudes to immigration examining both questions on the attitudes to people of a different ethnic group and whether the country is made worse or better place to live by people coming to live from other countries.

I chose to use the responses to the above two questions measured every two years over using more attitudinal questions but only having access to data from two sweeps.

The *first* question will be referred as “allow different” and the *second* question as “country worse/better” in chapters below.

Chapter 5. **Latent class models for temporal change**

5.1 Introduction

This chapter explores the use of latent class models for the 21 human values items in the European social survey data. Latent class analysis is a technique for categorical data that is similar to clustering, where the aim is to find a number of clusters or classes in the dataset which indicate similar patterns of response. In general, the number of classes is unknown and needs to be determined from the data. However, latent class models have the advantage over other methods of clustering in that there is a statistical basis for fitting the model, and this means that summary measures of fit such as the AIC and BIC (which are based on the likelihood) can be used to help choose the optimal number of classes.

The latent class approach is a completely different method for considering the value items in the ESS data. Schwartz has argued that the 21 items in the ESS form 10 human values, which in turn are nested within four dimensions. These form 10 continuous factor scores. The latent class approach, in contrast, treats each of the 21 items as independent from every other item given class membership, and “lets the data speak” in determining which items tend to be associated. Schwartz’s acceptance of the view (Schwartz, 2008) that within the ESS, each human value can be measured by only two or three items (one human value uses three items, the rest use two items) also seems worthy of challenge. I challenge Schwartz’s work in two respects.

One challenge is the number of items used for each human value. Psychometricians have come to the view that the number of items to measure a construct should be between three and five to make sure that scales have an appropriate level of reliability (Hinkin, 1995; Harvey et al., 1985). This is a lot larger than the two or three items comprising the ten ESS human value scales. To expand on this argument on the number of items, I take one example. The Power human value according to Schwartz (1992b) stands for "Social status and prestige, control or : dominance over people and resources ", and is measured within the ESS by two items. These items are: Item 2 "It is important to him to be rich. He wants to have a lot of money and expensive things" and item 17 "It is important to him to get respect from others. He wants people to do what he says". Neither of these items fully measure control or dominance, and it is easy to conceive of a person who wants money, but does not desire dominance. A similar

argument can be made for the other human values and their constituent items and two items does not seem sufficient.

The Latent Class approach provides an alternative to the factor approach of Schwartz. It moves away from a perhaps poorly measured set of human value scales to a consideration of the items as individual measures on the concept they are asking about. (Thus item 2 measures “being rich” and item 17 measures “needing respect”).

The other criticism of the Schwartz method is that the dichotomisation of the items is a natural way of looking at the data and perhaps better than treating the six responses to an item as a continuous scale. The measurement scale for each item naturally divides into 4 positive responses (e.g. “item is like me”) and two negative responses (e.g. “Item is not like me”) The dichotomisation which is part of the latent class analysis keeps this contrast between positive and negative in the analysis. The Schwartz method of treating the 10 scores as continuous and standardizing the items does not.

It is possible within Latent Class analysis to have other models. Ordinal latent class analysis would keep the six items and treat them as equally spaced on the ordinal scale, which seems unrealistic. . Alternatively, a multinomial latent class analysis would also keep the six items, but assume to underlying ordinality. The issue with both of these alternatives is that that both need a large number of additional parameters. The ordinal model would have 171 parameters for the 4 class model rather than 87, and the multinomial model would have 423 parameters. These more complex models are far more unstable and tend to give a different solution to each choice of starting value. We therefor made the decision to use a dichotimisation of the measurement scale into positive responses and negative responses for each item.

5.2 Latent class models for temporal data.

I am interested in this thesis of exploring latent class models for temporal change. The latent class approach is a different way of analysing the Schwartz human values. Rather than using the Factor analysis approach of Schwartz, which attempts to build underlying factor scores for each human value based on sets of only two indicators for each value, the latent class approach assumes the existence of a small number of classes, each representing a distinct pattern of response. Each respondent can be assigned to one of these classes and class membership can be used to predict attitudes ti immigration. Latent class approaches will treat the indicators as categorical (usually binary with two levels) rather than continuous.

Models incorporating temporal change in latent class models have mostly focused on longitudinal data designs, where the same individual or individuals are repeatedly measured over a period of time. Both hidden Markov models (typically for a small number of individuals) and latent Markov models (for a collection of individuals) have been proposed for such data (Bartolucci et al., 2012; Bartolucci et al., 2007) which includes estimation both of the latent states (or classes) and of initial and transition probabilities from one age-stable latent state to another as the sample ages. An alternative approach is the latent trajectory model or group based trajectory model (Nagin and Land, 1993; Nagin, 2005) where membership of a class is fixed but the definition of the classes change over time, and typically are used to understand differential patterns of development as a sample ages.

Very little work, however has been carried out on temporal change for repeated cross-sectional data, where a different sample of individuals is drawn at each time point. Such data is common in large social surveys including the dataset under consideration here. The European Social Survey surveys samples of between 1,000 and 2,000 individuals every two years in a collection of European countries. If questions are repeated in each sweep of the survey (with question wording and form of response remaining the same) then it is possible to develop models which investigate temporal change. Unlike the latent trajectory models, however, these models will represent change over calendar time rather than developmental processes over age, as the samples will tend to be the same average age at each sweep of the survey.

All latent class models estimate two forms of parameter - the **conditional membership probabilities** or the latent class profile (which define the nature of the classes), and the **latent class proportions** or how big the classes are. Formally, the first is the conditional probability of getting a specific response to an item given membership of a particular latent class. Three broad types of model can be conceptualised based on these two types of parameter - allowing *no change over time*, allowing the *class sizes to change with time* while keeping the latent class profiles constant; and allowing *both to change over time*. A further model which allows the class profiles to change but the class sizes to stay fixed is not considered as this model is considered to be unrealistic (Collins and Lanza, 2013).

5.2.1 The basic latent class model

I first introduce some notation. I assume that there are N respondents indexed by i , and J binary indicator variables indexed by j . The restriction to binary indicators is purely to simplify the development, and the indicator variables can also be ordinal, polytomous or count. In this thesis, I do in fact use binary items.

The rationale for using binary items is as follows:

- a) We have already identified that the Schwartz six point measurement scale for each indicator has categories 1 “very much like me”, 2 “like me”, 3 “somewhat like me”, 4 “a little like me”, 5 “not like me” and 6 “not like me at all”. These naturally split the response into four possible positive responses and two possible negative responses. This is unlikely to be a continuous scale – the distance between categories 4 and 5 is likely to be very much larger than the distance between categories 5 and 6. A binary split placing the negative responses 5 and 6 together in one bracket and the positive responses 1-4 in the other seems a sensible way of proceeding.
- b) Fitting an ordinal latent class model would require equal spacing between the categories in existing software, and as already stated in point a) above, this does not seem a realistic assumption. A polytomous model would require too many parameters (e.g. 4 latent classes with 21 indicators and 6 response categories would need $4 \times 21 \times 5 + 3 = 423$ parameters. Such a complex latent class model is likely to be very unstable.

I now build the latent class model. Let $y_{ijt(i)}$ be the binary response for respondent i to item j assuming that respondent i was surveyed once at time $t(i)$. $y_{ijt(i)}$ is defined to be 1 if the response is 1,2,3 or 4, and zero otherwise. Assuming that there are K latent classes, I define the indicator *response vector* over all items for respondent i as

$$\mathbf{y}_{it(i)} = \{y_{i1t(i)}, y_{i2t(i)}, \dots, y_{iJt(i)}\}$$

For the basic latent class model, there is no change over time. Then the likelihood L_i of the i th observation of the standard latent class model can be written as

$$L_i = P(\mathbf{y}_{it(i)}) = \sum_{k=1}^K \pi(k) P(\mathbf{y}_{it(i)} | k)$$

where $\pi(k)$ is the estimated class size of class k and where $\sum_{k=1}^K \pi(k) = 1$. As the latent class model assumes conditional independence between items given latent

membership, then $P(\mathbf{y}_{it(i)}|k)$ can be written as a product of the probabilities of the individual items given membership of class k . So,

$$P(\mathbf{y}_{it(i)}) = \sum_k \pi(k) \prod_{j \text{ valid}} P(y_{ijt(i)}|k)$$

Finally, as the items are binary, then $P(y_{ijt(i)}|k)$ can be specified as Bernoulli distributed.

$$P(y_{ijt(i)}|k) = p_{jk}^{y_{ijt(i)}} (1 - p_{jk})^{1-y_{ijt(i)}}$$

The likelihood L is then given by $L = \prod_i P(\mathbf{y}_{it(i)})$.

As already stated, this model assumes that both p_{jk} and $\pi(k)$ are time invariant.

Given a fixed value of classes K , estimation of the basic latent class model is usually through the Expectation-Maximisation (EM) algorithm. The details of this algorithm are well established; details can be found in, for example, Aitkin et al. (2014). The possibility of the algorithm finding a local rather than a global maximum of the likelihood needs to be considered. In this thesis, I have taken the approach of choosing a large number of different starting values, and choosing the solution that gives the largest log-likelihood. In this work I used 100 different start values.

There has also been much discussion on how to determine the optimal number of classes. Nylund et al. (2007) compared various methods. The first was a naive likelihood ratio test comparing the best model with $K+1$ classes to one with K classes and examining the difference in deviance against a chi-squared distribution with the appropriate number of degrees of freedom. The second method was a bootstrap likelihood ratio test, which simulates a large number of new datasets from the model with K classes (typically 100 times), each time fitting the $K+1$ class model to each simulated dataset and calculating the difference in deviance, In this way it is possible to obtain a set of deviance differences for the situation where the K class model is correct. and comparing the actual difference in deviance between the K class and the $K+1$ class models on the real dataset in the first method to the simulated distribution rather than to the chi-squared distribution. The third family of methods considered by Nylund et al. (2007) were information criteria such as the AIC and BIC. Based on simulation studies, they came to the conclusion that the BIC was the most accurate method in terms of reproducing the true number of classes. In this thesis I therefore use the BIC both for determining the number of classes and to compare models within the same number of classes.

The BIC can be thought of as a penalised deviance, and is defined as follows:

$$BIC = -2 \log_e L + p \log_e n$$

Where p is the number of parameters in the model and n is the number of observations.

The term $p \log_e n$ acts as a penalty on the likelihood which stops the model becoming too complex, and the penalty is greater for large values of n . Use of the BIC for model selection is particularly easy— the model with the lowest value of BIC is selected across all considered models. However, in problems with large number of indicators or a large number of items the BIC may not come to a minimum value, and other methods of examining the BIC such as scree test plots can be used.

Once the optimal model has been determined, then the posterior probabilities of an observation belonging to class k can be calculated. With K classes in the final model there will be K probabilities for each observation i . I refer to these as $\{q_{ik}\} k = 1 \dots K$. They are calculated as follows:

$$q_{ik} = \frac{\pi(k)P(y_{it(i)}|k)}{\sum_k \pi(k)P(y_{it(i)}|k)}$$

I use the $\{q_{ik}\}$ to assign individuals to latent classes. Established practice is to assign person i to the class with the highest q_{ik} - this is sometimes called the *modal probability* method.

Having defined the basic latent class model, I will now proceed to construct latent class models which allow change over time in repeated cross-sectional data. Such models are new in the latent class literature to my knowledge. Recall that in my study, I have seven equally spaced time points 2002, 2004, 2006, 2008, 2010, 2012 and 2014. This concept of changing latent class models over a covariate is called a group effect by Collins and Lanza (2010). Group effects in the literature are always categorical, with group typically representing sex (male or female) or different areas of a country (eastern seaboard, western seaboard, mid-west, south in the USA). Here we develop models for *continuous* group effects where group is represented by time. The rationale for this is that social change occurs gradually and a linear or quadratic change over time will better represent any change on human values over time.

It is useful to consider what change over time means in the context of repeated cross-sectional data. With longitudinal data, changes over time represent changing effect of age, with the respondent gradually getting older as they move from sweep to sweep. With repeated cross sectional data, however, the repeated samples are staying around the same age. Thus, time is

measuring “calendar time”- rather than age. Any time effect found may also be due to generational change – new cohorts of individuals have different behaviour.

I want to consider that calendar time is either affecting the definition of the classes in some way, or changing the probabilities of class membership. These two possibilities are developed below.

5.1.2 Changes in class sizes over time - Model A

I now develop the basic latent class model to allow for changes in class sizes over time. In this model, the latent class definitions stay invariant over the seven sweeps of the survey, but the proportions of respondents in each class are allowed to change.

I replace $\pi(k)$ with $\pi_i(k)$, modelling

$$\log\left(\frac{\pi_i(k)}{\pi_i(K)}\right) = \beta_{0k} + \beta_{tk}.$$

$$\log\left(\frac{p_{jk}}{p_{jK}}\right) = \gamma_{jk}$$

This allows the class sizes to vary with t but not the class profiles p_{jk} . This is the most common approach to time dependence. Here the group variable of time is treated as categorical, but this adds another $t \times (k - 1)$ parameters to the model. I can also consider a new *continuous time* model by amending the first equation.

$$\log\left(\frac{\pi_i(k)}{\pi_i(K)}\right) = \beta_{0k} + t \beta_{1k}.$$

This only adds an additional k parameters to the model, with the extra parameters representing linear slopes of time on the logit scale. As time effects are likely to be gradual, and smooth, I prefer the continuous form of the above model.

5.2.2 Changes in both the class sizes and the class profiles over time - Model B

This model is more complex than the first two models. The categorical form of the model is given by

$$\log\left(\frac{p_{ijk}}{p_{ijK}}\right) = \gamma_{jk} + \gamma_{tijk}$$

and

$$\log\left(\frac{\pi_i(k)}{\pi_i(K)}\right) = \beta_{0k} + \beta_{tik}.$$

This introduces a large number of extra parameters into the model, and, as changes over time, if present, are likely to be continuous, the continuous form of the model is preferred:

$$\log\left(\frac{p_{ijk}}{p_{ijK}}\right) = \gamma_{jk} + t\gamma_{1jk}$$

and

$$\log\left(\frac{\pi_i(k)}{\pi_i(K)}\right) = \beta_{0k} + t\beta_{1k}.$$

5.3 Measurement invariance and temporal change

In a series of papers, Clogg and Goodman (Clogg and Goodman, 1985; Clogg and Goodman, 1984) introduced the concept of multigroup latent class analysis, where a cross-classifying factor allows comparison of latent class structure across the factor groups. As discussed earlier, the groups are often defined by gender or country. These early models are closely connected to the idea of measurement invariance suggested by Collins and Lanza (2010). Measurement invariance implies the basic latent class model holds for all groups – there is no evidence of covariates influencing either p_{jk} or $\pi(k)$.

Collins and Lanza suggest a hierarchy of models- basic, model A and model B to investigate measurement invariance. Likelihood ratio tests or information criteria can be used to test for different levels of measurement invariance.

Kankaraš et al. (2010), (or KMV), building on work by Clogg and Goodman (1985) suggested descriptive names for the models when considering multi-group Latent Class Analysis, and where the groups are treated as *categorical*. These are given below in Table 5a., linking them with my models described above which allow for both categorical or continuous change over time. The models used in my thesis extend the KMV models by allowing for smooth changes where the grouping variable should be thought of as continuous, and not categorical. My models allow for linear slopes over time, but any continuous function of time could be used (quadratic). I have extended the descriptive names used by KMV to cover my new models. Thus Model A is no longer a structural homogeneity model, but a linear structural homogeneity model, and Model B is not a heterogeneity model but a linear partial heterogeneity model (as the linear constraints mean that this is no longer a full heterogeneity model).

KMV(2010)	KMV using my terminology- categorical time	This thesis with continuous time
Completely equivalent homogeneous model	Basic model	Basic model
Structural homogeneity	Categorical model A ($\pi(k)$ changing over time freely)	Continuous model A ($\pi(k)$ changing over time) <i>Linear structural homogeneity model</i>
Heterogeneity (complete inequivalence)	Categorical model B ($\pi(k)$ and p_{jk} changing over time freely)	Continuous model B ($\pi(k)$ and p_{jk} changing over time) <i>Linear partial homogeneity model</i>

Table 5a. Describing latent class models over time in terms of homogeneity and heterogeneity.

They also consider another model – that of partial homogeneity, where the class effects in the latent profiles are the same for each of the items. In our case, in the continuous case, this corresponds in my data to the same time slope for each item within each latent class. This makes no sense for our problem, as we would expect some items to increase over time and others to decrease over time.

As I want to work in continuous time, I need to refine the classification used by Kankaraš et al. (2010). Moreover, the definition of partial homogeneity used by them is fairly broad, and covers any model which places restrictions on the p_{jk} or the $\pi(k)$ which lies between the complete heterogeneity model and structural homogeneity model. Treating time as linear and continuous is in effect placing such a restriction on the p_{jk} . We therefore refer to the continuous model B as **the linear partial homogeneity** model. Similarly we refer to the continuous form of model A as the **linear structural homogeneity** model.

5.4 Software issues

There are many software products that can fit the basic latent class model, but relatively few that can fit the extended models discussed above. The package available in R (poLCA) is relatively basic and slow to run. The SAS macro PROC LTA is more flexible but can only deal with categorical grouping variables (recall that a grouping variable allows for different latent class profiles for each level of the grouping variable) and not continuous groups. As I need to treat time as a continuous grouping variable this is not satisfactory. The choice of which software product to use was really between MPLUS (Muthén and Muthén, 2007) and LATENT GOLD 5.1 (Vermunt and Magidson, 2015). I chose Latent Gold for this research for a number of reasons. Firstly, unlike MPLUS, LATENT GOLD has a very user friendly interface, which allows data to be read in quickly and easily from SPSS SAV files. Secondly, there is a flexible way of dealing with missing data, with missing at random methods incorporated for any missing indicator variables. Thirdly, the models fit very fast. LATENT GOLD takes advantage of any multiple processes that may be present in the hardware. Fourthly, the issue of multiple start values is built into LATENT GOLD, and it is very easy to specify any number of random start value sets. Finally, the models are very flexible, both in terms of the type of the indicator variables, and the nature of the covariates and predictors, and it is very easy to switch between a categorical and a continuous type.

LATENT GOLD has two basic model families relevant to this thesis – the Latent Class Cluster Model (LCCM) and the Latent Class Regression Model (LCRM). While the basic model can be fitted using the LCCM approach, the more complex temporal change models need the LCRM model to fit, and LCCM cannot be used. This also relates to the structure of the data

file. The LCCM module will take a data file in short wide format, with the items forming separate columns in the data set, and with one row per person. The LCRM module, in contrast, needs data in long thin format, with each item response needing a separate row. In this research, I will be explaining that there are 21 items, and each forms a separate row of the dataset within each case. This expands the length of the data by a factor of 21.

One difference between LCCM and LCRM in LATENT GOLD is in the way covariates are treated. The LCCM model has only one way of including covariates, and these model the $\pi(k)$ through a multinomial model. These are referred to as “covariates” in LATENT GOLD. The LCRM model, in contrast, is more flexible, and also allows “predictors” which model the p_{jk} . Thus the LCRM module is ideally suited to explore the new models proposed in this thesis.

This thesis used the latest version of LATENT GOLD (release 5.1) which has speed advantages over previous releases. However all of the models here can be fitted in versions of LATENT GOLD from 4.0 upwards.

5.5 Modelling approach for the ESS value items.

As described earlier in this Chapter, I decided to model dichotomised or binary recodings of the 21 value items. Although LATENT GOLD supports items which are ordinal or multicategory, the decision was taken to simplify the model. Using ordinal or multicategory forms of the items would increase the number of parameters substantially and decrease the stability of the models fitted.

I dichotomised all value items in the same way. If r_{ij} is the original response for person i on value item j , I defined $y_{ijt(i)}$ to be

$$y_{ijt(i)} = \begin{cases} 1 & \text{if } r_{ij} \leq 4 \\ 0 & \text{otherwise} \end{cases}$$

It is important to recall that on the original response scale, responses 1 to 4 were positive responses (ranging from “very much like me” to “a little like me”). Responses 5 and 6, however, were negative responses, with 5 indicating “not like me” and 6 indicating “not like me at all”. The binary dichotomy used therefore separates out positive responses from negative responses.

There is an important point to make in taking this approach. I am taking an absolute view of the 21 items, and taking the raw response as meaningful. Schwartz, however, took a different view. His "approved" method of analysing human values items is to correct for individual differences when constructing subscales for each individual (Kuntz et al., 2015). This is achieved by subtracting the mean over all of the 21 items from the mean of each of the individual value items. Schwartz justified this by saying that individuals may vary in forcefulness in how much they agree with items; this correction is recommended to deal with this. This produces a set of *relative scores* for each individual, some positive and some negative and centred around zero. The original response values are lost.

I have taken the view that this approach is misguided. To see this consider one respondent who gives negative responses of 5 and 6 on all items ("not like me"), and another respondent who gives positive responses of 1 and 2 ("very much or a lot like me"). The responses are also in the same pattern, so when the first respondent responds 1 the second will respond 5, and when the first person responds 2, the second will respond 6. The first person is wholly positive, the second wholly negative. Using Schwartz's approach, the two people will have exactly the same corrected response pattern once the response have been corrected for individual differences. My binary recoding, however, will keep the information that person 1 is positive, and person 2 negative.

More theoretically, in my view, Schwartz's argument only really holds when the response scale is unipolar (eg., going from "no interest" to "very great interest"). For bipolar scales which cross from positive to negative, I maintain that a great deal of important detail is lost if the absolute responses are removed.

My approach in analysing the 21 value items is to fit from $K=1$ to 5 classes for each of the three countries separately for the majority sample, and fitting the three types of model to each. Similarly, I fitted from $K=1$ to 4 classes for each of the three countries for the minority sample. My rationale for doing this separately for each country is that it is possible for one country to exhibit value change and for another not to. The smaller value of K for the minority sample is due to the smaller sample size and the inability to estimate more complex models (larger K) in the smaller datasets.

5.5.1 **Weighting in the latent class model**

Vermunt and Magidson (2007) give a careful description of the various ways in which latent class models can take account of sampling weights. There are essentially two components that need to be determined when including weights. The first is whether the weights are active or inactive. Active means that the latent class analysis will include the weights in the maximisation of the likelihood, whereas inactive weights will not. The first method is referred to (Vermunt and Magidson, 2007) as pseudo-likelihood maximisation. While this method is attractive and can deal with both clustering and stratification, there are severe problems in practical use.

Vermunt and Magidson (2007) state that “standard goodness-of-fit tests and related measures such as Akaike information criterion (AIC) and Bayesian information criterion (BIC) can no longer be used” under pseudo-maximum likelihood maximisation. A second decision is whether or not to rescale the sizes of the latent classes to correct for the weighting structure, and to allow for the correlation between the sampling weights and latent class membership. This rescaling seems in most cases to be sensible.

I have therefore taken the decision to adopt the inactive approach to the sampling weights, but to use rescaling to adjust the results once the latent classes have been formed. Vermunt and Magidson (2015), in the Latent Gold Technical Guide, refer to this as the two-step method (Section 13.2). This means that I can still use BIC to guide model choice. The weights used were the post-stratification weights (pspwght).

5.6 Results

5.6.1 UK Value items

Table 5b shows the result of fitting the various models above for K=1 to 5 classes to the UK data, fitting the majority and minority samples separately. It can be seen that the preferred model based on BIC for the majority sample is the five class basic model, and the preferred model for the minority sample is a three class basic model. These results support the completely equivalent homogeneous (basic) model for both majority and minority samples, showing no evidence of changes in latent class definition over time, nor any changes in class sizes over time.

Table 5c shows the five-class latent profiles for the UK majority sample with the associated class sizes. The class sizes are constant over time. The latent profiles are the posterior probabilities of a positive response given class membership. These probabilities are shaded so that probabilities above 0.75 are shaded in the darkest blue; probabilities between 0.5 and 0.75 are shaded in a mid-blue; probabilities between 0.25 and 0.5 are shaded in a light blue, and probabilities below 0.25 are unshaded. This shading scheme is used for all tables of latent profiles in this Chapter.

The largest group is class 1 (47% of the population). It can be seen that class 1 has nearly all probabilities above 0.75, and is more positive towards all human values than any of the other classes. The exception is a slightly lower probability (0.652) for importance of being rich. I label this group “**universally positive**”. The other classes are more difficult to interpret. Class 2 (23%) has two probabilities below 0.25, for the value items of “rich” and “seek adventure”; whereas class 3 (15%) has a low probability below 0.5 for only one item “follow rules.”. A tentative classification might be that class 2 are “**danger avoiders**” and non-risk takers for whom monetary gain is not important, whereas class 3 are “**rule breakers**”. Classes 4 and 5 are the smallest classes (9% and 5% respectively), and have some similar items with probabilities below 0.5. Items 2 (being rich), 7 (follow rules), 13(success) and 17(getting respect from others) are identified as low for both classes 4 and 5. In addition, class 5 has further low items: 4 (show abilities), 6 (be different), 10 (good time), 15 (adventure) and 21 (fun). Class 5 can be identified as **non-flamboyant** types who for whom having a good time and being successful are not priorities. Class 4 can be thought of as an **activism** class which

is less concerned about money and relatively happy to break rules, as well as being very high on freedom (item 11) and environmental concerns (Item 20).

Table 5d shows the three-class latent profiles and class sizes for the UK minority sample. The largest group is class 1 (60% of the population). This class has no human value items with probabilities under 0.75, and can be labelled as **universally positive**. Class 2 (25%) has three probabilities below 0.5, for the human value items of “rich”, “good time”, “seek adventure” (**danger avoiders**); whereas class 3 has a low probability below 0.5 for three items “rich”, “get respect” and especially “follow rules”. Class 3 (15%) seems to be a non-traditional group against traditional cultural views of following rules and family respect – similar to the “**rule breaker**” class in the majority sample.

MAJORITY SAMPLE UK					
	Number of classes K				
Model	1	2	3	4	5
Basic (time invariant) Completely equivalent homogeneous model	236506 21	219357 43	215167 65	213424 87	212728 109
Model A Linear structural homogeneity model	236506 21	219364 44	215182 67	213441 90	212738 113
Model B Linear partial homogeneity model	236574 42	219555 86	215540 130	213994 174	213310 218
MINORITY SAMPLE UK					
	Number of classes K				
Model	1	2	3	4	
Basic (time invariant). Completely equivalent homogeneous model	13979 21	13086 43	12921 65	12932 87	
Model A Linear structural homogeneity model	13990 21	13104 44	12943 67	12956 90	
Model B Linear partial homogeneity model	14101 42	13329 86	13291 130	13405 174	

Note: Cells contain BIC values and number of parameters. Preferred models have bold BIC values

Table 5b. BIC values (top line) and number of parameters (bottom line) fitted for various models and number of classes to UK human values responses (majority and minority samples)

Majority	Class 1	Class 2	Class 3	Class 4	Class 5
Class sizes –all years	0.4727	0.2313	0.1542	0.0873	0.0546
Posterior probabilities of responding positively to item given class membership					
ITEM/ short description	Class 1	Class 2	Class 3	Class 4	Class 5
Imp_crtiv	0.965	0.8107	0.927	0.937	0.5904
Imp_rich	0.6519	0.189	0.6318	0.1632	0.1481
Imp_eqopt	0.9812	0.9644	0.9202	0.9871	0.8349
Imp_shabt	0.9712	0.6457	0.9401	0.5539	0.2945
Imp_safe	0.9797	0.9688	0.8232	0.7458	0.7697
Imp_diff	0.9669	0.625	0.9007	0.9084	0.3076
Imp_frule	0.8944	0.8541	0.4334	0.3411	0.4523
Imp_udrst	0.9904	0.9709	0.8835	0.9873	0.786
Imp_modst	0.9387	0.939	0.6219	0.8694	0.7354
Imp_gdtim	0.9215	0.4509	0.8767	0.6319	0.2457
Imp_free	0.9909	0.9291	0.9715	0.9743	0.7945
Imp_hlppl	0.9972	0.9892	0.9595	0.9955	0.8788
Imp_suces	0.9662	0.4655	0.8874	0.3666	0.1402
Imp_strgv	0.9923	0.9721	0.8396	0.8252	0.7456
Imp_advnt	0.9919	0.9894	0.6284	0.6605	0.7171
Imp_bhprp	0.8254	0.1706	0.8194	0.6943	0.108
Imp_rspot	0.9251	0.6974	0.7312	0.2866	0.3643
Imp_lylfr	0.9992	0.9938	0.975	0.9875	0.908
Imp_env	0.9891	0.9835	0.8799	0.9702	0.8224
Imp_trad	0.9238	0.8957	0.5708	0.6391	0.5953
Imp_fun	0.9835	0.7035	0.9379	0.8897	0.4454

Table 5c. Latent class profiles for 5 class UK responses majority sample.

Minority	Class 1	Class 2	Class 3
Class sizes –all years	0.6064	0.2471	0.1465
Posterior probabilities of responding positively to item given class membership			
ITEM/ short description	Class 1	Class 2	Class 3
Imp_crtiv	0.9761	0.8322	0.9007
Imp_rich	0.7885	0.2674	0.3885
Imp_eqopt	0.9974	0.9819	0.9326
Imp_shabt	0.9888	0.7342	0.6421
Imp_safe	0.9851	0.9887	0.6899
Imp_diff	0.9809	0.6939	0.8595
Imp_frule	0.8745	0.8986	0.2326
Imp_udrst	0.9815	0.9429	0.8934
Imp_modst	0.9435	0.9131	0.723
Imp_gdtim	0.8988	0.414	0.7089
Imp_free	0.995	0.9152	0.9612
Imp_hlpl	0.9936	0.9811	0.9417
Imp_suces	0.9829	0.6736	0.632
Imp_strgv	0.9917	0.9885	0.7527
Imp_advnt	0.8721	0.2394	0.7036
Imp_bhprp	0.9657	0.9783	0.6639
Imp_rspot	0.95	0.7816	0.4843
Imp_lylfr	0.9947	1	0.9482
Imp_env	0.9888	0.9594	0.8887
Imp_trad	0.9271	0.925	0.6681
Imp_fun	0.9791	0.6229	0.8095

Table 5d. Latent class profiles for 3 class UK responses minority sample

Comparing the majority and minority samples, we see the same latent classes appearing. Classes 2 and 3 are very similar in sizes for the majority and minority samples. The majority analysis has identified more classes than the minority analysis (which does not identify the majority class 4 and class 5) but this might be due to the smaller sample size. On the other hand the majority classes of 4 and 5 do not value success and this might explain why classes 4 and 5 do not exist in the minority sample, for whom success is likely more important.

5.6.2 Germany Value items

Table 5e shows the results of fitting various latent class models to the German values data. Similar to the UK data, five classes are chosen for the German majority sample and three classes for the German minority data. However, unlike the UK dataset, the model chosen is not the basic model but Model A, which allows the class sizes to change over time. Overall, despite the chosen model suggesting that the sizes of the latent groups are changing over time, the definitions of the latent classes are constant, with no evidence of the classes themselves changing over time.

MAJORITY SAMPLE Germany					
	Number of classes K				
Model	1	2	3	4	5
Basic (time invariant) Completely equivalent homogeneous model	424136 21	405946 43	396322 65	392869 87	390254 109
Model A Linear structural homogeneity model	424136 21	405904 44	396266 67	392737 90	390085 113
Model B Linear partial homogeneity model	423520 42	405453 86	395997 130	392931 174	390430 218
MINORITY SAMPLE Germany					
	Number of classes K				
Model	1	2	3	4	
Basic (time invariant). Completely equivalent homogeneous model	17721 21	17042 43	16768 65	16761 87	
Model A Linear structural homogeneity model	17721 21	17039 44	16752 67	16752 90	
Model B Linear partial homogeneity model	17748 42	17170 86	17052 130	17146 174	

Note: Cells contain BIC values and number of parameters. Preferred models have bold BIC values.

Table 5e. BIC values and number of parameters fitted for various models and number of classes to Germany human values responses (majority and minority samples)

Majority	Class sizes				
ESS round	Class 1	Class 2	Class 3	Class 4	Class 5
2002	0.2762	0.2853	0.1959	0.1354	0.1073
2004	0.2933	0.2819	0.1882	0.1459	0.0906
2006	0.3101	0.2773	0.1801	0.1565	0.0761
2008	0.3261	0.2715	0.1714	0.1672	0.0637
2010	0.3419	0.2648	0.1625	0.1778	0.0531
2012	0.3569	0.2572	0.1535	0.1884	0.0441
2014	0.3713	0.2491	0.1444	0.1989	0.0365
Posterior probabilities of responding positively to item given class membership					
ITEM/ short description	Class 1	Class 2	Class 3	Class 4	Class 5
Imp_crtiv	0.9291	0.6821	0.9049	0.9044	0.5499
Imp_rich	0.3739	0.1022	0.5707	0.0659	0.2732
Imp_eqopt	0.9625	0.9392	0.8507	0.9402	0.637
Imp_shabt	0.7379	0.3001	0.8431	0.2946	0.3204
Imp_safe	0.959	0.9434	0.6435	0.6007	0.6343
Imp_diff	0.863	0.3326	0.8426	0.7752	0.3072
Imp_frule	0.7674	0.6854	0.312	0.1747	0.3823
Imp_udrst	0.9762	0.9206	0.8211	0.9733	0.4959
Imp_modst	0.8734	0.9108	0.3934	0.737	0.5616
Imp_gdtim	0.9664	0.5728	0.9532	0.8749	0.4256
Imp_free	0.9872	0.8603	0.9725	0.9679	0.6687
Imp_hlpl	0.9877	0.9412	0.8637	0.9534	0.5296
Imp_suces	0.9264	0.4611	0.9259	0.4634	0.3744
Imp_strgv	0.972	0.9075	0.7414	0.6339	0.5701
Imp_advnt	0.369	0.0116	0.635	0.3025	0.1436
Imp_bhprp	0.926	0.8702	0.4387	0.3569	0.433
Imp_rspot	0.7816	0.492	0.7064	0.2591	0.3827
Imp_lylfr	0.9956	0.9916	0.9716	0.9865	0.7409
Imp_env	0.9715	0.9369	0.8099	0.9307	0.5795
Imp_trad	0.8532	0.7981	0.4822	0.4914	0.4694
Imp_fun	0.846	0.2935	0.8236	0.5714	0.3231

Table 5f. The five-class latent profiles and varying class sizes for the German majority sample.

The largest group is class 1. The size of this group is changing over time increasing from 28% in 2002 to 37% in 2014. This class has only two human value items “rich” and “seek adventure” with probabilities under 0.5, and is more positive towards all human values than any of the other classes. This seems similar to the UK class of “**danger avoiders**”. The other classes are more difficult to interpret. Class 2 has seven probabilities below 0.5, for the value items of “rich”, “show abilities”, “seek adventure”, “different”, “successful”, “get respect”, “seek fun” ; whereas class 3 has a low probability below 0.5 for four items “follow rules”, “modest”, “behave properly”, “follow traditions”. A tentative classification which is similar to the UK might be that class 2 are **non-flamboyant** individuals, whereas class 3 are **rule breakers**. Classes 4 and 5 are the smallest classes, and have similar items with probabilities below 0.5. Items “rich”, “show abilities”, “follow rules”, “successful”, “seek adventure”, “behave properly”, “get respect”, “follow traditions” are identified as low for both classes 4 and 5. Unique items to class 5 are “try different things”, “understand others”, “have a good time”, “seek fun”. Both can be identified as **non-flamboyant** types who for whom following the rules is not important and being successful is not a priority. Group 5 additionally tends to be against seeking fun and having a good time.

Table 5g. shows the three-class latent profiles for the German minority sample. The largest group is class 1. The size of this group is changing over time increasing from 27% in 2002 to 38% in 2014. This class has only two human value items “rich” and “seek adventure” with probabilities under 0.5, and is more positive towards all human values than any of the other classes. The other classes are again more difficult to interpret. Class 2 has seven probabilities below 0.5, for the human value items of “rich”, “show abilities”, “good time”, “seek adventure”, “different”, “successful” and “seek fun” ; whereas class 3 has a low probability below 0.5 for six items “rich”, “safe”, “follow rules”, “behave properly”, “get respect” and “follow traditions”. The size of the Class 2 has had a slight decrease over time from 36% in 2002 to 33% in 2014. In addition, the size of Class 3 has decreased more over time from 36% in 2002 to 28% in 2014. Class 3 seems to be a **non-traditional group** or **rule breakers** who perhaps are reacting against traditional cultural views of success and family respect. Class 2 are **more conservative** or **non-flamboyant** in outlook with a disinterest in adventure, having fun, success and achievement.

Comparing the majority and minority samples, we see the same latent classes appearing. Classes 2 is very similar to the majority sample. Class 3 is a combination of class 3, 4 and 5 of

majority. The minority analysis does not identify the majority class 4 and class 5 but this might be due to the smaller sample size. On the other hand the majority classes of 4 and 5 do not value success and this might explain why classes 4 and 5 do not exist in the minority sample, for whom success is likely more important.

Minority	Class sizes		
ESS round	Class 1	Class 2	Class 3
2002	0.2740	0.3645	0.3615
2004	0.2914	0.3607	0.3479
2006	0.3094	0.3564	0.3342
2008	0.3280	0.3515	0.3205
2010	0.3470	0.3461	0.3068
2012	0.3666	0.3402	0.2932
2014	0.3865	0.3338	0.2797
Posterior probabilities of responding positively to item given class membership			
ITEM/ short description	Class 1	Class 2	Class 3
Imp_crtiv	0.9355	0.6159	0.8199
Imp_rich	0.4788	0.1833	0.3975
Imp_eqopt	0.9760	0.9442	0.8508
Imp_shabt	0.8213	0.3663	0.5644
Imp_safe	0.9517	0.9507	0.4932
Imp_diff	0.8163	0.3758	0.7502
Imp_frule	0.7	0.7361	0.3164
Imp_udrst	0.9549	0.9366	0.7459
Imp_modst	0.7694	0.8912	0.5195
Imp_gdtim	0.9584	0.4721	0.8201
Imp_free	0.9798	0.816	0.8852
Imp_hlppi	0.9772	0.9549	0.8024
Imp_suces	0.9297	0.4544	0.7309
Imp_strgv	0.9609	0.9571	0.6041
Imp_advnt	0.4791	0.0235	0.5386
Imp_bhprp	0.8433	0.912	0.3801
Imp_rspot	0.7393	0.5437	0.4498
Imp_lylfr	0.9845	0.9955	0.9227
Imp_env	0.9349	0.8528	0.7553
Imp_trad	0.8551	0.7964	0.4923
Imp_fun	0.828	0.1887	0.6027

Table 5g. Latent class profiles and class sizes for 3 class German responses minority sample

5.6.3 Sweden Value items

Table 5h. shows the results of fitting various latent class models to the Swedish values data. The results here are very similar to the German data for majority, again, five classes are chosen for the Swedish majority sample and the preferred model for the minority data is a three class basic model. Similar to the German data, Model A is chosen, which allows the class sizes to change over time. This again suggests that the latent classes definitions are constant, with no evidence of the classes themselves changing over time in Sweden.

MAJORITY SAMPLE Sweden					
	Number of classes K				
Model	1	2	3	4	5
Basic (time invariant) Completely equivalent homogeneous model	187729 21	176971 43	173962 65	172725 87	171835 109
Model A Linear structural homogeneity model	187729 21	176980 44	173973 67	172739 90	171781 113
Model B Linear partial homogeneity model	187643 42	176997 86	174177 130	173123 174	172421 218
MINORITY SAMPLE Sweden					
	Number of classes K				
Model	1	2	3	4	
Basic (time invariant). Completely equivalent homogeneous model	5067 21	4916 43	4931 65	4988 87	
Model A Linear structural homogeneity model	5067 21	4915 44	4933 67	4999 90	
Model B Linear partial homogeneity model	5159 42	5093 86	5200 130	5363 174	

Note: Cells contain BIC values and number of parameters. Preferred models have bold BIC values.

Table 5h. BIC values and number of parameters fitted for various models and number of classes to Sweden human values responses (majority and minority samples)

Table 5i. shows the five-class latent profiles for the Swedish majority sample. The largest group is class 1. The size of this group is changing over time increasing from 35% in 2002 to 47% in 2014. This class has no human value items with probabilities under 0.5, and is more positive towards all human values than any of the other classes. The next largest class 2, the size of his group has slightly decreased from 25% in 2002 to 22% in 2014. This group has three probabilities below 0.5, for the value items of “rich”, “seek adventure”, ”successful” ; whereas class 3 has a low probability below 0.5 for only one item “follow rules”. The size of this group has decreased a little from 20% in 2002 to 15% in 2014. Thus we can again identify that class 2 are **danger avoiders** and **non-risk takers**, whereas class 3 are **rule breakers**. Classes 4 and 5 are the smallest classes, and have similar items with probabilities below 0.5. Items “rich”, “show abilities”, “successful”, “get respect” are identified as low for both classes 4 and 5. Unique items to class 5 are “have a good time”, “try different things”, “ seek adventure”. Again the results are similar to Sweden and Germany with both groups again identified as **conservative** types for whom being successful and gaining respect are not priorities. They are distinguished by item “successful”, which is the lowest for class 5 and class 4. Class 5 however are also people for whom enjoyment of life in terms of having fun has a low priority.

Majority	Class sizes				
ESS round	Class 1	Class 2	Class 3	Class 4	Class 5
2002	0.3584	0.2507	0.1996	0.092	0.0994
2004	0.3774	0.2465	0.1912	0.0887	0.0962
2006	0.3967	0.2421	0.1828	0.0854	0.0930
2008	0.4164	0.2373	0.1745	0.0821	0.0897
2010	0.4363	0.2322	0.1663	0.0788	0.0864
2012	0.4564	0.2269	0.1582	0.0754	0.0831
2014	0.4766	0.2213	0.1502	0.0721	0.0797
Posterior probabilities of responding positively to item					
ITEM/ short description	Class 1	Class 2	Class 3	Class 4	Class 5
Imp_crtiv	0.9868	0.9029	0.9751	0.9696	0.7467
Imp_rich	0.6976	0.2599	0.6123	0.1608	0.1244
Imp_eqopt	0.9903	0.9857	0.9408	0.9863	0.9278
Imp_shabt	0.9522	0.6451	0.9321	0.4269	0.2942
Imp_safe	0.9249	0.9791	0.6087	0.6361	0.7773
Imp_diff	0.9768	0.6092	0.8835	0.9336	0.3348
Imp_frule	0.9062	0.9017	0.4778	0.5689	0.6419
Imp_udrst	0.9871	0.9709	0.9001	0.9905	0.8635
Imp_modst	0.9293	0.9488	0.6443	0.9007	0.8463
Imp_gdtim	0.9667	0.7329	0.9158	0.8993	0.3503
Imp_free	0.9915	0.9247	0.9714	0.9559	0.8112
Imp_hlppl	0.9985	0.9908	0.9492	0.9976	0.9179
Imp_suces	0.9456	0.4291	0.8808	0.1591	0.1072
Imp_strgv	0.9514	0.9048	0.6764	0.6985	0.6572
Imp_advnt	0.8401	0.159	0.7989	0.7169	0.1018
Imp_bhprp	0.9622	0.9555	0.5496	0.6297	0.6477
Imp_rspot	0.9591	0.7563	0.7493	0.4879	0.3238
Imp_lylfr	1	0.9997	0.9824	0.9931	0.9339
Imp_env	0.9815	0.983	0.8796	0.9767	0.9259
Imp_trad	0.8981	0.8857	0.594	0.7524	0.6535
Imp_fun	0.9952	0.8914	0.9458	0.9673	0.5446

Table 5i. Latent class profiles for 5 class Sweden responses majority sample

Table 5j. shows the three-class latent profiles for the Swedish minority sample. The largest group is class 1. This class has no human value items with probabilities under 0.5, and is more positive towards all human values than any of the other classes. Class 2 has four probabilities below 0.5, for the human value items of “rich”, “follow rules”, “behave properly”, “get respect”; whereas class 3 has a low probability below 0.5 for five items “rich”, “try different things”, “good time”, “successful” and “seek adventure”. Class 2 in this case seems to be the non-traditional group. Class 3 are more conservative in outlook and can be identified as **non-flamboyant** with a disinterest in adventure, success and trying different things.

Minority	Class 1	Class 2	Class 3
Class sizes –all years	0.5541	0.2711	0.1747
Posterior probabilities of responding positively to item given class membership			
ITEM/ short description	Class 1	Class 2	Class 3
Imp_crtiv	0.9743	1	0.7898
Imp_rich	0.5817	0.3687	0.22
Imp_eqopt	0.9939	0.9592	0.8993
Imp_shabt	0.9281	0.7859	0.5757
Imp_safe	0.9303	0.6383	0.7967
Imp_diff	0.995	0.9212	0.4766
Imp_frule	0.8875	0.4709	0.7485
Imp_udrst	0.9892	1	0.9226
Imp_modst	0.9073	0.696	0.8848
Imp_gdtim	0.919	0.8899	0.4043
Imp_free	0.9812	0.9861	0.8833
Imp_hlppi	1	1	0.8917
Imp_suces	0.903	0.691	0.3213
Imp_strgv	0.9345	0.7436	0.9307
Imp_advnt	0.7931	0.7382	0.1544
Imp_bhprp	0.9924	0.409	0.7488
Imp_rspot	0.9218	0.4998	0.6112
Imp_lylfr	1	0.9763	0.9274
Imp_env	0.9802	0.908	0.9512
Imp_trad	0.9098	0.6017	0.6335
Imp_fun	0.9678	1	0.6351

Table 5j. Latent class profiles for 3 class Sweden responses minority sample

Comparing the majority and minority samples, we see the same latent classes appearing. Classes 2 and 3 are very similar in sizes for the majority and minority samples. The majority analysis has identified more classes than the minority analysis (which does not identify the majority class 4 and class 5) but this might be due to the smaller sample size. On the other hand the majority classes of 4 and 5 do not value success and this might explain why classes 4 and 5 do not exist in the minority sample, for whom success is likely more important similarly to the UK majority sample.

5.7 Discussion

There are three points to make from the work in this chapter,

The first is methodological. I have extended the multi-group latent class terminology and model structure, replacing the concept of multiple categorical groups (such as country or gender) to instead deal with changes over continuous time, allowing models for repeated cross sectional data to be developed. This has led to two new models - the linear structural homogeneity model, where the log odds ratio of the class sizes show a linear dependence over time, and the linear partial homogeneity model, where the log-odds of the profile probabilities show linear dependence over time. Such work is new to the latent class literature and is a useful advance.

The second point is theoretical. In none of the three countries and subsamples of the datasets was the partial homogeneity model chosen as the preferred latent class model. This means that there is no evidence that the latent classes themselves change definition over time. This implies that Schwartz is correct when he states that human values are invariant and do not change over time, at least in the short term of the 14 year period examined in this thesis. While individuals may change their view and move classes, there is no evidence of the value items realigning themselves around a new latent class structure.

The final point is practical. I plan to use the class membership from these latent class models as a predictive factor in explaining attitudes to immigration. Using the modal probability to assign individuals to classes, I will use the five group latent class solution from the basic model for the UK majority analysis and from Model A for the German and Swedish majority sample analysis. Similarly, I will use the three group latent class solution from the basic model for the UK minority analysis and from Model A for the German and Swedish minority sample analysis. Note that although the preferred model is the two class model A for the Swedish minority sample, I use the three group model A for prediction, as the BIC values are not that different, and this gives greater consistency over the three countries.

**Chapter 6. Modelling attitudes to
immigration using human value items
and socio-demographic variables as
predictors**

6.1 Introduction

In the previous chapters I investigated the underlying latent structure of the human value indicators in the European Social Survey, focusing on a latent class solution. I investigated temporal heterogeneity for the majority and minority populations in three countries and found that there was partial heterogeneity in Germany and Sweden but not in the UK. This partial heterogeneity did not affect the class profiles but did affect the class sizes.

In all cases a four latent class solution seemed to be appropriate.

This thesis however is primarily concerned with the differing factors affecting attitudes to immigration in three distinct European countries, and this is the focus of this chapter.

Some authors (Davidov and Meuleman, 2012; Davidov et al., 2008; Gorodzeisky, 2011) have used a multi-level or mixed effects model for modelling attitudes, with the assumption that the country is a random effect. This means that the effects of fixed covariates will be the same across countries, while it is possible to relax this assumption by specifying random coefficients for some of these fixed effects, and, thus allowing them to vary by country, in a complex model with many covariates, models with many random coefficients become impossible to estimate. I have therefore carried out a country by country analysis.

As explained earlier in Chapter 4, there are four groups of variables used as predictors jointly with the human value items to model the attitudinal questions. Firstly, there are Individual characteristics; age, gender, marital status, education, religion, life satisfaction and a question on happiness.

Secondly, there are two responses on political orientation; a question on ‘How interested in politics are they’ and their position on the left right scale.

Thirdly, there are questions relating to ethnicity; mother’s and father’s origin, their citizenship and whether they belong to the ethnic minority group.

Finally, there are some measures on the household characteristics; how they feel about their household income.

Many factors have been associated with attitudes to immigration and the numbers of studies are diverse. This has been covered in more details in Chapter 2, Section 2.3.2. However, I have included summary (Table 6a.) showing studies linking social-demographic factors specifically

to attitudes to immigration, and some of the more important predictors were included in this analysis. Specifically, individual characteristics age, gender, marital status, education and religion were included. Variables relating to political orientation and economic situation have also been included because they have been commonly associated with attitudes to immigration. In addition, *life satisfaction, happiness, father's and mother's origin and citizenship* have shown to effect the attitudes to immigration although the number of studies that included them are scarce (see table 6a). I have chosen to use these variables because they are likely to effect the attitudes to immigration, particularly over time trends of a decade.

Although number of studies are limited this works aim to add further insights on the predictive power of these socio-demographic variables on predicting attitudes to immigration.

Socio-demographic factors	Studies
Gender, age, marital status, race	(Gorodzeisky, 2011; Citrin et al., 1997; Dustmann and Preston, 2001; Gang et al., 2002; Economidou et al., 2017; Mayda, 2006; Bullard, 2015)
Education qualification, citizenship, social class, primary language, migration experience, religion	(Dustmann and Preston, 2007; Mayda, 2006; Bullard, 2015; Gang et al., 2013; Coenders and Scheepers, 2003; Hainmueller and Hiscox, 2007a; Billiet, 1995; McFarland, 1989; Murray and Marx, 2013; Paas and Halapuu, 2012)
Political party affiliation, left-right wing orientation	(Alonso and Fonseca, 2012; Anderson, 1996; Chandler and Tsai, 2001; Dustmann and Preston, 2007; Bullard, 2015; Dustmann and Preston, 2004)
Income, labour market status, economic security	(Dustmann and Preston, 2004; Fetzer, 2000; Dustmann and Preston, 2007; Facchini and Mayda, 2009; Hatton, 2016)
Geographical location, town size, immigration size	(Semyonov et al., 2006; Semyonov et al., 2008; Simpson et al., 2008)

Table 6a. Studies linking Socio-demographic factors and attitudes towards immigration [(Adapted from Butkus et al. (2016))

Earlier work by researchers examining associations between human values and attitudes to immigrations including Davidov and his colleagues (Davidov et al., 2008; Davidov and Meuleman, 2012), Ramos and Vala (2009) and a more recent study by Ponizovskiy (2016) but briefly they include work by have been briefly disccsued in have been discussed in in Chapter 2.6 and summarised in more detail in the table below.

Title of the study	Data used	Questions studied	Human Value items	Findings	Authors
Values and support for immigration: A Cross-Country Comparison	ESS (2002-2003)	Willingness to allow immigrants into the country and Rejection of conditions to allow them.	Two dimensions - self-transcendence and conservation.	The study concludes that there is a strong support on the self-transcendence to display a positive effect on support for immigration, and conservation a negative effect	Davidov et al., 2008
Explaining attitudes towards immigration policies in European countries: The role of human values	ESS(2002-2003, 2004-2005 and 2006-2007)	Willingness to allow immigrants into the country; Whether respondents would like their country to allow only a few or many immigrants of a certain group to come. These groups were people of the same race or ethnic group from most [country] people, people of a different race or ethnic group from most [country] people, and people from the poorer countries outside Europe.	Two dimensions - self-transcendence and conservation.	This study reconfirms the findings of th study conducted in 2008 where the strong display of the effect of the selected human value dimensions have on attitudes to immigration.	Davidov and Meuleman., 2012
Predicting Opposition towards immigration: Economic resources, Social resources and Moral resources	ESS(2002-2003)	"To what extent do you think [country] should allow people of the same race or ethnic group as most [country] people to come and live here?"; "How about people of a different race or ethnic group from most [country] people?"; "To what extent do you think [country] should allow people from the richer countries in Europe to come and live here?"; "And how about people from the poorer countries in Europe?"; "To what extent do you think [country] should allow people from the richer countries outside Europe to come and live here?"; "How about people from the poorer countries outside Europe?".	Four dimensions- self-transcendence, conservation, self-enhancement, openness to change.	The aim of this study was to test the predictive power of the economic self-interest, social capital and social values on opposition towards immigration. Findings display modest contribution of the first group of variables measuring the predictive power of the economic factors. The second block of variables measuring social capital have shown to be better predictors. The highest variability was explained through the use of the four higher value dimensions, specifically the values of the self-transcendence and of openness to change are negatively correlated to opposition to immigration, and the values of the conservation and of self-enhancement are positively correlated to opposition towards immigration.	Ramos and Vala., 2009
Values and attitudes towards immigrants: Cross-Cultural differences across 25 countries	ESS(2009-2010, 2011-2012)	Attitudes towards migrants were measured with 3 items from a migration module of the ESS questionnaire: whether immigrants are bad or good for the country's economy; whether country's cultural life is undermined or enriched by immigrants and whether immigrants make the country a worse or better to live.	Ten human values individually (security, conformity, tradition, benevolence, universalism, self-Direction, stimulation, hedonism, achievement and power)	Results from this study are in line with the previous work, indicating that universalism an item of self-transcendence is the strongest predictor of positive attitudes towards immigration and security a conservation item is the most negative.	Ponizovski, 2016

Table 6b. Summary of main studies on the association between human values and attitudes to immigration.

6.2 Modelling majority and minority data.

As mentioned in Chapter 1, this Chapter examines modelling approaches to attitudes to immigration. In the next section I discuss why an ordinal regression modelling approach was chosen for analysis of the data. This is then followed by the results of the modelling and a discussion.

I take the opportunity to model on two subsets of data; 1) *majority* data for each country separately. Here data on respondents classifying themselves as “belonging to an ethnic minority” was removed from this subset. The second dataset 2) *minority* dataset contained those that identified themselves as “belonging to an ethnic minority” and majority data was removed. Overall, the majority datasets were larger for all countries than the minority datasets (see Table 4b. in Chapter 4, Section 4.1.1). The largest minority dataset was for the UK with 1108 respondents when data from all seven sweeps is merged.

This focus on modelling the attitudes of the minority population is new as discussed in Section 2.2. Other studies have either focused on the majority population or have taken the whole sample without disaggregation. In terms of attitudes to immigration previous work has either looked at the complete sample or the majority population. The justification for using majority only is that the minority attitudes are thought to be different. It is likely that the models for the minority population will differ substantially from the models for the whole sample for each country, and may also differ across countries.

Generally survey responses observing attitudes to immigration are collected on a Likert scale, as this is the most common method of recording attitudes. The Likert scale, first proposed in 1932 (Likert, 1932) records responses in a ranking order, for example, from strongly agree to strongly disagree, or better to worst, disagree to agree.

The responses in the first question asking respondents if they ‘allow’ immigration in their respective country are in a 4 point scale that range from “allow many immigrants to allow none”. Similarly, in the second questions measures responses in this manner, starting from “

make country better” to “make country worse”, however, the range of possible responses is much greater *i.e.*, 11 point scale measurement.

Given that the dependent attitudinal variables in this chapter have an ordered categorical nature, the most appropriate statistical method for analysing such data are *ordinal regression models*, and so this is applied here for analysing the data. The most commonly used ordinal regression approach are the *proportional odds model* and the *continuation ratio model* (McCullagh, 1980; Agresti, 2002; Greene and Hensher, 2010). The terminology of cumulative link models (McCullagh, 1980) extends the idea of the *proportional odds model* to other link functions. Models with the probit link function are also referred as *ordered probit models*, and finally models with a complementary log-log links are known as *proportional hazard models* in survival analysis.

Other models that can be applied to analyse ordinary responses include, base-line logit models, log-linear models and standard linear regression model. The first two of these approaches generally assume that the response variable is nominal rather than ordinal and information about the ordering of the response categories is ignored. Standard linear regression models need some assumption of distance between attitudinal categories. Given that the distance between each attitudinal level is not known, a score for each level is required, e.g., 1, 2, 3.. and any choice of scoring imposes assumptions of the distance between these levels that may not be accurate. In addition, linear models assume that data are normally distributed and this is not generally the case for discrete data and such can lead to biasness of analysis outcomes. Furthermore, linear models ignore the categorical nature of the response variable and uses standard parametric models for continuous response variable and uses ordinary least squares (OLS) methods and analysis of variance (ANOVA) (Agresti, 2010) – assumptions that may also not be correct.

+

Cumulative link models are the most commonly used method for ordinal data because, in contrast to linear models, they treat the response rightfully as ordered and categorical whilst maintaining a regression framework similar to linear models, and using an underlying distribution appropriate for ordered categorical data rather than the Normality assumptions of linear regression..

6.2.1 The cumulative link model

I first define the cumulative link model for response variable Y_i which takes one of the values $j= 1, \dots, J$ categories. I take the underlying probabilities for individual i in the J categories to be $\pi_{1i}, \dots, \pi_{ji}$. The model is a special form of a log odds model which works on cumulative probabilities. The log odds are usually called cumulative logits and take the general form:

$$\text{logit}[\Pr(Y \leq j)] = \log \left[\frac{\Pr(Y \leq j)}{1 - \Pr(Y \leq j)} \right] = \log \left[\frac{\pi_1 + \dots + \pi_j}{\pi_{j+1} + \dots + \pi_J} \right],$$

$j= 1, \dots, J-1.$ (6.1)

A cumulative link model with a logit link is a regression model for cumulative logits for a response variable Y_i and a set of explanatory variables \mathbf{X}_i , where \mathbf{X}_i is a vector of the explanatory variables for the i th observation) with corresponding effect parameters β , the model can be written as

$$\text{logit}[\Pr(Y \leq j)] = \alpha_j - \mathbf{X}_i' \beta, \quad j = 1, \dots, J - 1; \quad (6.2)$$

The minus sign in the explanatory variable term makes the sign of each component of β have the usual interpretation with regard to whether the effect is positive or negative (Agresti, 1999), other scholars (Diggle, 2002) parameterise it with a plus sign and the difference between the parameterisations is then the reversed sign of the estimates. The same effect of the predictors is assumed within each partition when using these models as the β s do not depend on j (McCullagh, 1980). Thus a key part of the equation is that $\mathbf{X}_i' \beta$ is independent of the response categories j , therefore β has the same effect for each of the $J-1$ cumulative logits and does not contain an intercept, since α_j (the cut points in the model) act as intercepts. The smaller the values of $\mathbf{X}_i' \beta$, the higher the probability of the response falling in the first category and for the large values of $\mathbf{X}_i' \beta$ the response is likely to fall at the upper end of the response scale (Christensen, 2015).

6.2.2 **Software used.**

There are currently a large number of statistical packages are able to fit cumulative logit models and these include SAS, Stata, SPSS and R. The SPSS implementation uses as its base the original software of McCullagh called PLUM. In this analysis cumulative logit model was fit by using the *ordinal* package from R.

6.3 Modelling method

A weighted cumulative logit model was applied to the selected attitudinal variables with the earlier described explanatory variables in order to evaluate the extent to which those factors influence attitudes to immigration over time, 2002 - 2014. The weights used were, as before, the post-stratified weights given in the ESS datasets. Models were fitted separately to the majority population and the minority population for each of the three countries. Prior to modelling, most of the explanatory variables and the variable extracted for the latent classes have been treated as factors. The missing mechanism for the missing values in the dataset is assumed to be missing completely at random (MCAR) and a complete case approach has been applied (Molenberghs et al., 2004).

Five different modelling approaches were used to investigate how human values relate to the attitudinal questions and *main-effects* only model was applied for each.

1. The first model is the base model with explanatory social-demographic variables but no variables representing human values.
2. The second model builds on the first model and adds to it the standardised means of each of the ten human values. This approach uses the Schwartz (2008) methodology which insists that the underlying values need to be standardised to account for country to country variation (cultural specific effects) in how subjects respond to ordinal scales. I have already discussed in Chapter 5 of this thesis why I believe this is not a sensible approach.
3. The third model uses the second model and replaces the centred means with the uncentered means of the human values in model prediction.
4. The fourth model uses single human value items (21 items) together with all other explanatory variables as predictors.
5. The fifth model replaces the human value items and instead uses the most likely latent class membership (the posterior probabilities of the best Latent Class Regression model was extracted and the highest probability for each respondent was used to determine latent class membership. This membership category was then used as a factor in the cumulative link model as an additional predictor jointly with all other covariates.

Following on from this, I have used the Bayesian Information Criterion (BIC) to compare the goodness of fit for the five models. In social research BIC model selection has been widely used when dealing with categorical data. BIC has been used to identify the optimal model and smaller values are preferred compared to larger ones (Schwarz, 1978).

$$BIC = k \log n - 2 \log(L)$$

$\log(L)$ - maximized value of the likelihood function of the model

k - the number of the free parameters that this model has

n - is the number of observations that the model is being fit to.

Selected cumulative logit models that used all the predictors in modeling were named as “Full model” in the coefficient tables. A stepwise BIC approach was then used for selecting the “best” model (lowest BIC) and is referred as the *final model* in the coefficient tables.

Values of the Akaike Information Criterion (AIC) have also been added to these tables for comparisons. However, it is well known that AIC tends to overfit when sample sizes are large (Burnham and Anderson, 2003).

The next section will show results from model information criterion comparisons on the AIC, BIC, and minus the value of the Log-likelihood [(labelled as LL (-)] on each of the five models fitted for the two attitudinal questions, as dependent variables, in UK, Germany and Sweden:

- Allow many/few of different race/ethnic group from majority (IMDFETN) Four point scale 1=many to 4 =none
- Immigrants make country worst or better to live (IMWBCNT)

Finally, it is important to note that the scales for IMWBCNT have been reversed in this analysis from the original coding, where the scale is now interpreted as 0 = better for the country, and 10 = worse for the country.

6.3.1 Model Information Criterion comparisons

6.3.1.1 United Kingdom

Table 6c. shows information criterion comparisons of the five models for UK majority and minority data. The lowest BIC values for both attitudinal questions are found in *model four*. This model uses the 21 single human value items together with all other explanatory variables as predictors. The BIC for the attitudinal question *Allow many/few of different race/ethnic group form majority, (IMDFETN)?*

“*Allow different*” is 21882.18 for the majority sample and 2047.81 for minority sample respectively, and BIC for *Immigrants make country worse or better to live (IMWBCNT)* is 18881.08 for the majority sample and 1718.229 for the minority sample. Based on the BIC, the 4th model will be chosen for further examination for the UK data.

UK													
IMDFETN-Allow many/few immigrants of different race/ethnic group from majority													
Majority							Minority						
Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)	Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)
imdfetn/without hv	23646.67	23907.45	11787.34	36			imdfetn/without hv	1951.37	2119.045	940.68	35		
imdfetn/standardised	22700.5	23032.4	11304.3	46			imdfetn/standardised	1858.33	2071.6	884.17	45		
imdfetn/unstandardised	22700.49	23032.33	11304.25	46			imdfetn/unstandardised	1858.6	2071.87	884.3	45		
imdfetn/21items	21472.75	21882.18	10679.38	57	21753.03	k=log(9900)	imdfetn/21items	1784.38	2047.807	836.19	56	1857.46	k=log(642)
imdfetn/latent classes 5 Class	25372.84	25665.44	12646.42	40			imdfetn/latent classes 3 Class	1954.63	2131.895	940.32	37		
IMWBCNT - Immigrants country worse or better place to live													
Majority							Minority						
Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)	Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)
imdfetn/without hv	20468.37	20721.95	10199.19	35			imwbcnt/without hv	1587	1750.164	759.5	34		
imdfetn/standardised	19649.65	19974.33	9779.82	45			imwbcnt/standardised	1513.2	1721.952	712.6	44		
imdfetn/unstandardised	19647.96	19972.64	9778.98	45			imwbcnt/unstandardised	1515.22	1723.972	713.61	44		
imdfetn/21items	18478.74	18881.08	9183.37	56	18772.89	k=log(9900)	imwbcnt/21items	1459.3	1718.229	674.65	55	1508.66	k=log(642)
imdfetn/latent classes 5 Class	21955.47	22240.85	10938.73	39			imwbcnt/latent classes 3 Class	1589.82	1762.575	758.91	36		

Table 6c. Model information criteria comparisons for the UK responses (majority and minority samples)

6.3.1.2 Germany

Information criteria comparisons performed on German data is shown in Table 6d. below. Similar to the UK, *model four* was found to have the lowest BIC, 27218, 35 for the majority data on the first attitudinal question, “allow different”. The lowest BIC, 24730.17 is also observed for model 4 for the majority data with the second question, “country worse/better”. In contrast to UK, however, the lowest BIC values for German minority are observed for the *first model* where only the explanatory social-demographic variables were used as predictors but no variables representing human values – this was true for both attitudinal questions. The BIC values on “allow different” was 1589.419 and for the second question “country worst/better” 1427.953 respectively.

GERMANY													
IMDFETN-Allow many/few immigrants of different race/ethnic group from majority													
Majority							Minority						
Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)	Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)
imdfetn/without hv	29179.52	29448.45	14553.76	36			imdfetn/without hv	1433.85	1589.419	681.92	35	1454.7	k=log(525)
imdfetn/standardised	28283.67	28626.78	14095.84	46			imdfetn/standardised	1398.8	1597.89	654.4	45		
imdfetn/unstandardised	28279.39	28622.5	14093.7	46			imdfetn/unstandardised	1401.24	1600.334	655.62	45		
imdfetn/21items	26795.22	27218.35	13340.61	57	27057.64	k=log(12591)	imdfetn/21items	1349.96	1596.24	618.98	56		
imdfetn/latent classes 5 Class	30390.55	30691.2	15155.27	40			imdfetn/latent classes 3 Class	1435.25	1599.71	680.63	37		
IMWBCNT - Immigrants country worse or better place to live													
Majority							Minority						
Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)	Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)
imdfetn/without hv	26159.28	26420.61	13044.64	35			imwbcnt/without hv	1276.73	1427.953	604.37	34	1296.09	k=log(525)
imdfetn/standardised	25541.43	25877.03	12725.72	45			imwbcnt/standardised	1256.7	1451.497	584.35	44		
imdfetn/unstandardised	25540.59	25876.19	12725.3	45			imwbcnt/unstandardised	1256.8	1451.599	584.4	44		
imdfetn/21items	24314.55	24730.17	12101.27	56	24571.32	k=log(12591)	imwbcnt/21items	1231.58	1473.834	560.79	55		
imdfetn/latent classes 5 Class	27332.23	27625.2	13627.11	39			imwbcnt/latent classes 3 Class	1277.01	1437.13	602.51	36		

Table 6d. Model information criteria comparisons for the German responses (majority and minority samples)

6.3.1.3 Sweden

Information criteria comparisons performed on Swedish data, shown in Table 6e. below, indicate that the lowest BIC values in majority data was *model four*, where 21 human value items are included. This was apparent for both attitudinal questions, “allow different” and “country worse/better” with BIC value of 15620.83 and 14481.38 respectively. However, for the minority data the model with lowest BIC values was *model three*, where together with explanatory variables as predictors are included the ten value dimensions with unstandardized means. This was true both for the question “allow different”, BIC 646.115 and “country worse/better, BIC 507.59

SWEDEN													
IMDFETN-Allow many/few immigrants of different race/ethnic group from majority													
Majority							Minority						
Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)	Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)
imdfetn/without hv	18831.67	19090.12	9379.84	36			imdfetn/without hv	623.48	751.645	276.74	35		
imdfetn/standardised	16508.91	16834.08	8208.46	46			imdfetn/standardised	492.61	647.775	201.31	45		
imdfetn/unstandardised	16477.96	16803.13	8192.98	46			imdfetn/unstandardised	490.95	646.115	200.48	45	493.74	k=log(232)
imdfetn/21items	15220.02	15620.83	7553.01	57	15473.98	k=log(8109)	imdfetn/21items	464.54	654.497	176.27	56		
imdfetn/latent classes 5 Class	19398.7	19687.12	9659.35	40			imdfetn/latent classes 3 Class	628.32	767.472	276.16	38		
IMWBCNT - Immigrants country worse or better place to live													
Majority							Minority						
Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)	Model	AIC	BIC	LL(-)	k	BIC for final model	k=log(n)
imdfetn/without hv	17242.8	17494.09	8586.4	35			imwbcnt/without hv	422.09	547.5165	177.04	34		
imdfetn/standardised	15175.24	15493.36	7542.62	45			imwbcnt/standardised	354.31	507.6934	133.15	44		
imdfetn/unstandardised	15134.28	15452.4	7522.14	45			imwbcnt/unstandardised	354.06	507.445	133.03	44	345.9	k=log(232)
imdfetn/21items	14087.59	14481.38	6987.8	56	14271.08	k=log(8109)	imwbcnt/21items	338.97	527.5931	114.49	55		
imdfetn/latent classes 5 Class	17784.96	18066.17	8853.48	39			imwbcnt/latent classes 3 Class	427.09	563.583	176.54	37		

Table 6e. Model information criteria comparisons for the Swedish responses (majority and minority samples)

In summary, we notice the three types of model have been chosen. For the majority population, model 4 (21 individual human values) has been chosen for the best model for all three countries. For the minority population, the preferred model varies by country. Model 4 is preferred for the UK, Model 1 for Germany and Model 3 for Sweden.

I note three things. Firstly the latent class membership is not a good way of incorporating information about human values into the cumulative link regression models for attitudes to immigration. This is disappointing, as I expected this method to show promise. Secondly, for none of the analyses has the Schwartz method of standardised human value measures been chosen as the preferred method. This supports my initial view on the inherent problems of the Schwartz method which have already been described. Thirdly, there is variability in the method chosen for the minority population. This may be due to smaller sample sizes, although the samples for the UK and Germany) are in fact large enough (around 1000 for each country over the seven sweeps). However it is surprising that human values play no role for predicting attitudes to immigration for the German minority subsample. I have accepted the preferred model for each country in the next stage of the analysis. I return to this later on in this Chapter.

6.4 Results of variable selection modelling

6.4.1 UK: Allow many/few of different race/ethnic group from the majority population (IMDFETN)

Table 6f. shows coefficients of the UK majority and minority samples using the *fourth model*, where the 21 single value items were used as predictors independently and treated as continuous variables. This is coded 1= allow many to 4= allow none. A backward stepwise BIC method was used to reduce the full model to the final model, at each stage removing the explanatory variable that gave the greatest reduction in BIC. In the final model for the majority sample, the socio-demographic factors that were found significant in predicting first attitudinal question “allow different” were *age, gender, education, happiness, religion, citizenship, mother’s origin, political interest, left-right orientation* and *household income feel*. In addition, there were eight human value items that were found to be significant predictors to the same question and included: *important being rich, important that people are treated equally and have equal opportunities, important being safe, important to live in safe and secure surrounding, important following rules, important to understanding different people, important that government is strong, important to follow tradition* and *important having fun*.

In contrast, for the minority respondents the significant socio-demographic factors ($p < 0.05$) were *age, life satisfaction, mother’s origin, political interest* and *left-right wing orientation*. However, only two items of the human values were significant for minority respondents and were *important to care for nature and environment* and *important to follow tradition*.

Positive coefficients indicate a tendency for negative attitudes (less supportive of allowing immigrants of different race/ethnic background) and negative coefficients highlight positive attitudes towards allowing more.

For example, we again consider variable (IMDFETN) “Allow many/few of different race/ethnic group from majority”. This is coded 1= allow many to 4= allow none.

The estimate for age 76+ for the UK (table 6e) is 1.053 pushing the probabilities more to the 4 end of the scale, and indicating that those in that category are far more likely to give responses at the “few or none” end of the ordinal scale than the 24 or under group.

In contrast, negative values are associated with negative attitudes and positive values with positive attitudes when interpreting coefficients with on human values items. This is because the coding for the value items has a high value for “someone not like me”, and a low value for “someone like me”.

In more detail, from the coefficient table it can be seen that *age* has a strong effect. Figure 6a plots the regression coefficients of the age effect for both majority and minority samples with a 95% confidence interval on the estimates. As age increases the predicted cumulative log odds of disagreeing with immigration increases.

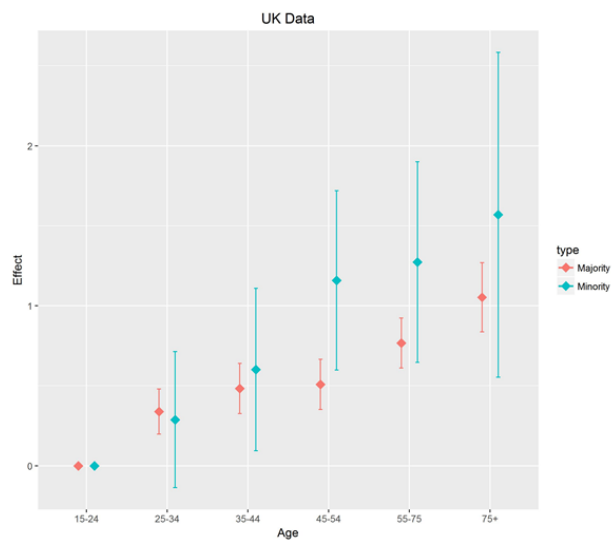


Figure 6a. Age effect on the attitudinal question “allow different” for both UK majority and minority samples with a 95% confidence interval.

The plot shows the effect is increased in the minority group, however, the confidence interval overlap suggests that there is little difference in the age effect for the two samples.

In the majority sample, respondents that were less supportive to allowing immigrants of different race/ethnic background were associated with older age groups, being female, less educated, less happy, less religious, being a citizen of the country, having a native mother, being less interested in politics, not having a left political orientation and having difficulties with present income.

In contrast, positive attitudes in the majority sample were associated with younger age groups, being male, more educated, happier, and more religious, having a foreign born mother, being more interested in politics, having a left wing political orientation and feeling good about their present income. When comparing majority and minority populations, the age effect follows the same trend; regardless of ethnic group, older respondents have less supportive attitudes to allowing immigrants of different race/ethnic background into the country. Similarly the human value item *important to follow tradition* had a negative effect regardless of belonging to the majority or minority group.

Human value items that associated with less supportive attitudes to “allowing different” were important being rich, important being safe, having strong government, following rules, following tradition, having fun. Whereas, in the UK majority population, positive items that predict more supportive attitudes to “allow different” were; important that people have equal opportunities and important to understand others. In the minority population only the item *important to care for nature and environment* predicted a positive attitude effect.

In terms of calendar year, there was no significant effect over time, indicating that attitudes were not hardening over time once all other explanatory variables were taken account of. However, it is possible for majority individuals in later sweeps to be more right wing and therefore their attitudes to immigration will change

UK- Allow more immigrants of different ethnic/race group from most [members of your country]? (IMDFETN - 4 point scale starting from Allow many=1 to Allow none = 4)									
Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)	Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)
Ref: Age15-24					21 human value items				
Age 25-34	0.339(0.072)***	0.288(0.217)	0.349(0.068)***	0.26(0.192)	<i>ipctriv</i>	0.008(0.017)	-0.062(0.069)		
Age 35-44	0.483(0.08)***	0.602(0.259)*	0.562(0.069)***	0.645(0.216)**	<i>imprich</i>	-0.089(0.018)***	0.002(0.064)	-0.072(0.016)***	
Age 45-54	0.509(0.08)***	1.159(0.286)***	0.604(0.071)***	1.143(0.224)***	<i>ipeqopt</i>	0.296(0.02)***	0.238(0.093)*	0.294(0.019)***	
Age 55-75	0.767(0.08)***	1.273(0.32)***	0.897(0.07)***	1.452(0.255)***	<i>ipshabt</i>	0.026(0.019)	0.056(0.068)		
Age 76+	1.053(0.11)***	1.569(0.518)**	1.225(0.098)***	1.811(0.447)***	<i>impsafe</i>	-0.095(0.018)***	-0.117(0.075)	-0.083(0.017)***	
Ref: Essround1					<i>impdiff</i>				
Essround2	-0.124(0.068)	-0.709(0.264)**			<i>ipfrule</i>	-0.089(0.016)***	-0.078(0.063)	-0.08(0.015)***	
Essround3	0.197(0.062)**	-0.402(0.248)			<i>ipudrst</i>	0.252(0.022)***	0.17(0.082)*	0.231(0.021)***	
Essround4	0.085(0.065)	-0.134(0.252)			<i>ipmodst</i>	-0.013(0.017)	-0.166(0.067)*		
Essround5	0.148(0.086)	-0.212(0.315)			<i>ipgdtim</i>	0.027(0.018)	0.27(0.066)***		
Essround6	0.06(0.088)	-0.508(0.317)			<i>impfree</i>	-0.023(0.02)	-0.082(0.079)		
Essround7	-0.14(0.084)	-0.646(0.288)*			<i>iphlppl</i>	-0.033(0.024)	-0.071(0.102)		
Ref: Gender/Male					<i>ipsuces</i>				
Gender/Female	0.149(0.042)***	0.191(0.154)	0.193(0.04)***		<i>ipstrgv</i>	-0.178(0.019)***	-0.006(0.076)	-0.182(0.019)***	
Ref: Marital status/Married					<i>ipadvnt</i>				
Mar/Separated/divorced/widowed	0.15(0.057)**	0.11(0.253)			<i>ipbhprp</i>	0.007(0.019)	0.117(0.077)		
Mar/Single	-0.097(0.061)	-0.062(0.209)			<i>iprspt</i>	0.004(0.017)	-0.111(0.071)		
Ref: Education/Primary education					<i>iplylfr</i>				
Edu/Secondary education	0.349(0.124)**	0.411(0.322)	0.373(0.123)**		<i>impenv</i>	0.042(0.02)*	0.247(0.075)**		0.193(0.064)**
Edu/University education	-0.143(0.124)	0.156(0.306)	0.112(0.12)		<i>imptrad</i>	-0.063(0.016)***	-0.064(0.066)	-0.061(0.015)***	-0.142(0.054)**
Ref: Happy/ Unhappy					<i>impfun</i>				
Happy/Neutral	-0.176(0.092)	-0.479(0.346)	-0.303(0.081)***			-0.055(0.019)***	-0.127(0.076)	-0.068(0.016)***	
Happy/Happy	-0.277(0.098)**	-0.736(0.367)*	-0.448(0.079)***		Note* List of items -1) <i>ipctriv</i> - Important being creative; 2) <i>imprich</i> - Important being rich; 3) <i>ipeqopt</i> - Important to have equal opportunities; 4) <i>ipshabt</i> - Important to show abilities; 5) <i>impsafe</i> - Important being safe; 6) <i>impdiff</i> - Important to listen to different people; 7) <i>ipfrule</i> - Important to follow rules; 8) <i>ipudrst</i> - Important to understand others; 9) <i>ipmodst</i> - Important to be modest; 10) <i>ipgdtim</i> - Important to have a good time; 11) <i>impfree</i> - Important to be free; 12) <i>iphlppl</i> - Important to help people; 13) <i>ipsuces</i> - Important to be successful; 14) <i>ipstrgv</i> - Important to have a strong government; 15) <i>ipadvnt</i> - Important to be adventurous; 16) <i>ipbhprp</i> - Important to behave properly; 17) <i>iprspt</i> - Important to respect others; 18) <i>iplylfr</i> - Important to be loyal to friends and family; 19) <i>impenv</i> - Important to care for the environment; 20) <i>imptrad</i> - Important to follow traditions; 21) <i>impfun</i> - Important to have fun in life.				
Ref: Lifesatisfaction/Unsatisfied									
Lifesat/Neutral	-0.168(0.078)*	-0.42(0.266)		-0.762(0.211)***					
Lifesat/Satisfied	-0.25(0.084)**	-0.798(0.298)**		-1.333(0.217)***					
Ref: Religion/Not religious & Weak									
Religion/Moderate	-0.146(0.045)**	0.001(0.182)	-0.161(0.045)***						
Religion/ Rather religious and Very religious	-0.311(0.066)***	-0.008(0.218)	-0.331(0.065)***						
Ref: Citizenship/Yes									
Ctzsh/No	-0.402(0.114)***	-0.044(0.197)	-0.456(0.11)***						
Ref: Fatherborn/yes									
Fatherborn/no	-0.202(0.087)*	-0.39(0.252)							
Ref: Motherborn/Yes									
Motherborn/No	-0.232(0.087)**	-0.386(0.258)	-0.426(0.063)***	-0.843(0.172)***					
Ref: Political-interest/ very interested									
Poltint/hardly interested	0.31(0.046)***	0.516(0.172)**	0.305(0.046)***	0.427(0.161)**					
Poltint/not at all interested	0.697(0.06)***	0.978(0.218)***	0.721(0.06)***	1.059(0.202)***					
Ref: Left-right-scale/ Left									
Lrscale/Neutral	0.362(0.049)***	0.783(0.172)***	0.373(0.049)***	0.908(0.163)***					
Lrscale/Right	0.394(0.054)***	0.646(0.2)**	0.408(0.054)***	0.832(0.191)***					
Ref: Household-income/ Living comfortably									
hhif/Coping on present income	0.164(0.043)***	0.199(0.17)	0.181(0.043)***						
hhif/Difficult on present income	0.228(0.066)***	0.44(0.22)*	0.277(0.065)***						
hhif/Very difficult on present income	0.469(0.121)***	-0.414(0.369)	0.565(0.119)***						
Threshold coefficients									
Allow many to come and live here Allow some	-2.2316(0.223)	-2.173(0.648)	-2.165(0.187)	-1.676(0.347)					
Allow some Allow a few	0.573(0.222)	0.581(0.647)	0.618(0.185)	0.909(0.347)					
Allow a few Allow none	2.619(0.223)	2.904(0.653)	2.651(0.187)	3.098(0.366)					

Table 6f. Table of ordinal regression coefficients for the attitudinal question “allow different” in UK responses (majority and minority samples)

Note: (* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$)

6.4.2 Germany: Allow many/few of different race/ethnic group from majority (IMDFETN)

Table 6g. shows coefficients of models for the German majority and minority samples on the “allow different” attitudinal question.

Recall that the attitudinal question “allow different” the *fourth model* (21 value items model) showed the best fit for majority data, whereas, the *first model* (no value items - explanatory variables only) was the best fit model for the minority data.

The socio-demographic variables that were found to be significant in the final model for the majority sample include: variable– *ESS round* (which measures the calendar time effect), *marital status*, *education*, *happiness*, *life-satisfaction*, *citizenship*, *father’s origin*, *political interest*, *the left-right wing orientation* and *feelings about the household income*.

In addition, there were seven human value items that were found to be significant predictors to the same question and these were: *important that people are treated equally and have equal opportunities*, *important to live in safe and secure surroundings*, *important to follow rules*, *important to understand different people*, *important that government is strong*, *important to behave properly*, and *important to care for the environment*.

In comparison to the majority respondents, the final model for the minority respondents showed that only two variables from the socio-demographic factors were significant and included *citizenship and left-right wing orientation*.

For majority data the time effect (ESS round) was found to be significant in all sweeps, 2002-2014 and this was apparent in both the full model and the final model. For the minority population, however time effect was not found to be significant in the final model. However, regression coefficients were plotted on both majority and minority data using the *full model* as a means of comparison.

Temporal effect in ESS round 2002 – 2014 (seven sweeps) plotted can be seen in Figure x which shows regression coefficients with a 95% confidence interval

based on a Gaussian assumption. The effect of year variable indicates that German majority is more positive towards “allowing different immigrants” compared to the responses at beginning of the data collection, as in 2002 (ESS round1) for example. This suggests an improvement on the attitudes over time. In addition, the plot shows no significant time effect in the minority group.

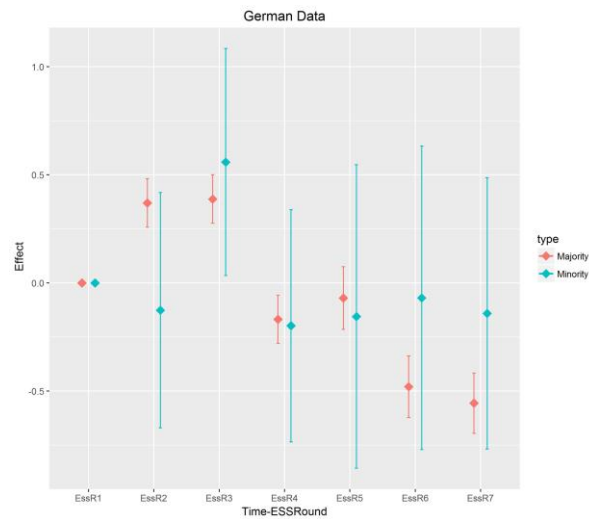


Figure 6b. Time effect on the attitudinal question “allow different” for both German majority and minority samples with a 95% confidence interval.

In German majority, respondent's that were less supportive to allowing immigrants of different race/ethnic background were those that were in the earlier years of the ESS rounds, married, female, less educated, less happy, less satisfied with life, citizen of the country, had native father, were less interested in politics, not belonging to left political orientation and having difficulties with present income.

In contrast, positive attitudes were associated with later rounds of ESS, 2004 upwards, more educated, happier, more satisfied with life, having foreign born father, being more interested in politics, belonging to left wing political orientation and feeling good about their present income.

Interestingly, unlike the UK data, there was no age effect or gender effect in the final model, whether the majority or minority sample was considered.

Human value items from the majority data that associated with less supportive attitudes to "allowing different" were important being safe, having strong government, following rules, important to behave properly. Whereas, positive items that predicted more supportive attitudes to "allow different" were; important that people have equal opportunities and important to understand others and the item and important to care for nature and environment.

Germany- Allow more immigrants of different ethnic/race group from most [members of your country]? (IMDFETN - 4 point scale starting from Allow many=1 to Allow none = 4)									
Variables	Full model(Majority)	Full model(Minority)	Final model (Majority)	Final model (Minority)	Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)
Ref: Age15-24					21 human value items				
Age 25-34	0.204(0.065)***	0.366(0.244)			<i>ipcrtiv</i>	-0.002(0.017)*			
Age 35-44	0.235(0.071)***	-0.06(0.268)			<i>imprich</i>	-0.037(0.016)*			
Age 45-54	0.186(0.075)*	0.136(0.304)			<i>ipeqopt</i>	0.233(0.019)***		0.243(0.018)***	
Age 55-75	0.294(0.077)***	-0.269(0.326)			<i>ipshabt</i>	0.008(0.016)			
Age 76+	0.372(0.102)***	0.236(0.568)			<i>impsafe</i>	-0.103(0.017)***		-0.103(0.016)***	
Ref: Essround1					<i>impdiff</i>	-0.006(0.016)			
Essround2	0.37(0.057)***	-0.126(0.278)	0.352(0.056)***		<i>iprule</i>	-0.089(0.014)***		-0.093(0.014)***	
Essround3	0.388(0.057)***	0.559(0.268)*	0.376(0.056)***		<i>ipdrst</i>	0.268(0.021)***		0.28(0.019)***	
Essround4	-0.168(0.057)**	-0.198(0.274)	-0.189(0.056)***		<i>ipmodst</i>	0.017(0.016)			
Essround5	-0.076(0.074)	-0.155(0.358)	-0.089(0.074)		<i>ipgdtim</i>	0.042(0.02)*			
Essround6	-0.48(0.073)**	-0.069(0.358)	-0.493(0.072)***		<i>impfree</i>	-0.033(0.021)			
Essround7	-0.556(0.071)***	-0.141(0.32)	-0.579(0.07)***		<i>iphlppl</i>	0.025(0.021)			
Ref: Gender/Male					<i>ipsuces</i>	-0.012(0.017)			
Gender/Female	0.02(0.037)	0.19(0.163)			<i>ipstrgv</i>	-0.271(0.017)***		-0.28(0.017)***	
Ref: Marital status/Married					<i>ipadvnt</i>	-0.003(0.016)			
Mar/Separated/divorced/widowed	-0.013(0.052)	0.555(0.245)*	0.012(0.05)		<i>ipbhprp</i>	-0.074(0.016)***		-0.067(0.016)***	
Mar/Single	-0.175(0.056)**	-0.308(0.24)	-0.251(0.044)***		<i>iprspot</i>	0.036(0.015)*			
Ref: Education/Primary education					<i>iplylfr</i>	0.0003(0.026)			
Edu/Secondary education	-0.195(0.07)**	-0.009(0.265)	-0.207(0.066)**		<i>impenv</i>	0.084(0.019)***		0.077(0.018)***	
Edu/University education	-0.575(0.074)***	-0.069(0.274)	-0.575(0.068)***		<i>imptrad</i>	-0.028(0.015)			
Ref: Happy/ Unhappy					<i>impfun</i>	-0.039(0.017)*			
Happy/Neutral	-0.23(0.074)**	-0.582(0.309)	-0.232(0.073)**						
Happy/Happy	-0.332(0.079)***	-0.67(0.336)*	-0.349(0.079)***						
Ref: Lifesatisfaction/Unsatisfied									
Lifesat/Neutral	-0.21(0.063)***	0.408(0.28)	-0.222(0.063)***						
Lifesat/Satisfied	-0.302(0.069)***	0.412(0.306)	-0.315(0.069)***						
Ref: Religion/Not religious & Weak Religion/Moderate									
Religion/ Rather religious and Very religious	-0.141(0.039)***	0.189(0.187)							
Ref: Citizenship/Yes									
Ctzsh/No	-0.598(0.107)***	-0.439(0.187)*	-0.689(0.099)***	-0.468(0.153)**					
Ref: Fatherborn/yes									
Fatherborn/no	-0.152(0.076)*	0.003(0.318)	-0.235(0.058)***						
Ref: Motherborn/Yes									
Motherborn/No	-0.064(0.079)	-0.39(0.309)							
Ref: Political-interest/ very interested									
Poltint/hardly interested	0.372(0.039)***	0.416(0.178)*	0.354(0.038)***						
Poltint/not at all interested	0.801(0.078)***	0.639(0.316)*	0.79(0.077)***						
Ref: Left-right-scale/ Left									
Lrscale/Neutral	0.265(0.04)***	0.579(0.18)**	0.255(0.04)***	0.681(0.171)***					
Lrscale/Right	0.785(0.048)***	0.801(0.224)***	0.783(0.047)***	0.764(0.211)***					
Ref: Household-incomef/ Living comfortably									
hhif/Coping on present income	0.187(0.04)***	0.049(0.218)	0.191(0.04)***						
hhif/Difficult on present income	0.245(0.065)***	0.083(0.263)	0.259(0.064)***						
hhif/Very difficult on present income	0.648(0.104)***	0.153(0.387)	0.651(0.103)***						
Threshold coefficients									
Allow many to come and live here Allow some	-2.618(0.198)	-1.65(0.559)	-2.795(0.128)	-1.3838(0.146)					
Allow some Allow a few	0.051(0.196)	0.927(0.557)	-0.134(0.125)	1.052(0.14)					
Allow a few Allow none	2.283(0.198)	3.145(0.58)	2.09(0.127)	3.147(0.213)					

Note* List of items -1) *ipcrtiv*- Important being creative; 2) *imprich*- Important being rich; 3) *ipeqopt*- Important to have equal opportunities; 4) *ipshabt*- Important to show abilities; 5) *impsafe*- Important being safe; 6) *impdiff*- Important to listen to different people; 7) *iprule*- Important to follow rules; 8) *ipdrst*- Important to understand others; 9) *ipmodst*- Important to be modest; 10) *ipgdtim*- Important to have a good time; 11) *impfree*- Important to be free; 12) *iphlppl*- Important to help people; 13) *ipsuces*- Important to be successful; 14) *ipstrgv*- Important to have a strong government; 15) *ipadvnt*- Important to be adventurous; 16) *ipbhprp*- Important to behave properly; 17) *iprspot*- Important to respect others; 18) *iplylfr*- Important to be loyal to friends and family; 19) *impenv*- Important to care for the environment; 20) *imptrad*- Important to follow traditions; 21) *impfun*- Important to have fun in life.

Table 6g. Table of ordinal regression coefficients for the attitudinal question “allow different” in German responses (majority and minority samples)

Note: (* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$)

6.4.3 Sweden: Allow many/few of different race/ethnic group from majority (IMDFETN)

Coefficients of the Swedish majority and minority models for the first attitudinal variable are presented in Table 6h.

Recall that for the majority sample the *fourth model* (21 value items) has been the best fit for the data, whereas, the *third model* (unstandardized values) has fitted the data best for the minority sample.

The socio-demographic variables that were found significant in the final model for majority were: *age, gender, education, happiness, political interest, the left-right wing orientation and feelings about household income.*

In addition, again for the majority population there were twelve human value items that were found to be significant predictors to the attitudinal question as follows: *important to be rich, important that people are treated equally and have equal opportunities, important to try new and different things, important to live in safe and secure surrounding, important following rules, important to understanding different people, important to be free, important to help people, important being successful, important that government is strong, important to be loyal to friends and family and important to follow tradition.*

In contrast, when considering the unstandardized model for the minority respondents only the *Universalism* human value has shown to be a highly significant predictor in supporting the attitudes towards the attitude “allow different”.

Age (see Figure 6c.) was found to be significant in both majority and minority data when the full model was performed. The age effect however disappeared for the mainority sample after model reduction. In the minority data there was no significant difference between younger and older age groups as they were all supportive in allowing immigrants of different race/ethnic background. In the majority respondents older age groups were less supportive than younger respondents to the same question, however.

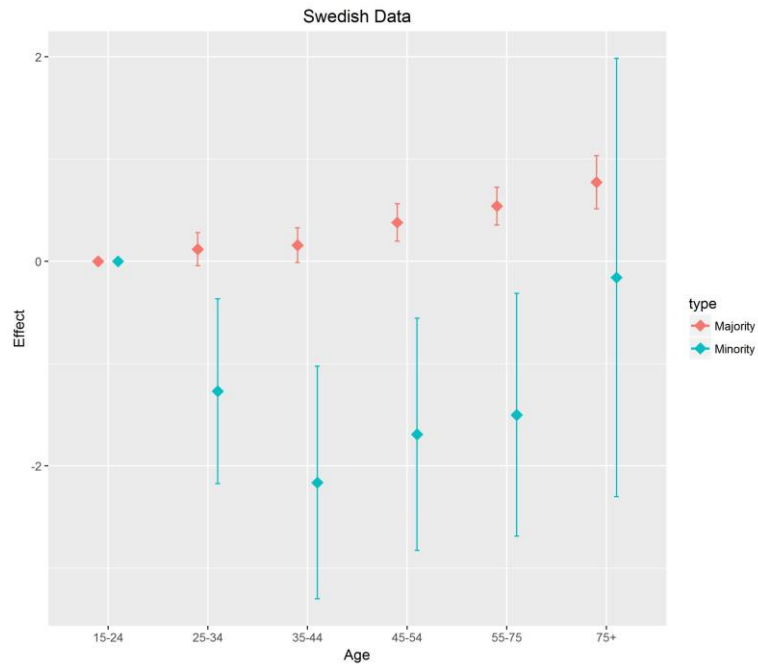


Figure 6c. Age effect on the attitudinal question “allow different” for both Swedish majority and minority samples with a 95% confidence interval.

For the Swedish majority sample, and considering the final model, respondents that were less supportive to allowing immigrants of different race/ethnic background were those that belong to older age groups, were less interested in politics, not belonging to left political orientation and having difficulties with present income. These variables echo those for the UK respondents.

In contrast, positive attitudes were associated more with females, educated, happier. Here the gender effect has switched from that shown in the UK data, where females were more negative towards allowing immigration from different ethnic groups.

Human value items from the majority data that associated with less supportive attitudes to “allowing different” were: important to be rich, important to live in safe and secure surrounding, important following rules, important to be free, important that government is strong, important to be loyal to friends and family and important to follow tradition important being safe, having strong government, following rules. Whereas, positive items that predicted more supportive attitudes to “allow different” were; important that people have equal opportunities and important to understand others, important being successful and important helping other people.

Sweden- Allow more immigrants of different ethnic/race group from most [members of your country]? (IMDFETN - 4 point scale starting from Allow many=1 to Allow none = 4)									
Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)	Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)
Ref: Age15-24					Unstandardised Human Values				
Age 25-34	0.118(0.082)	-1.27(0.461)**	0.115(0.08)		<i>Securityuncentered</i>		-0.855(0.587)		
Age 35-44	0.157(0.087)	-2.163(0.58)***	0.154(0.08)		<i>Conformity-uncentered</i>		-0.535(0.489)		
Age 45-54	0.379(0.093)***	-1.692(0.5785)**	0.345(0.081)***		<i>Tradition-uncentered</i>		0.848(0.594)		
Age 55-75	0.54(0.094)***	-1.501(0.605)*	0.492(0.075)***		<i>Benevolence-uncentered</i>		-1.211(2.094)		
Age 76+	0.773(0.132)***	-0.158(1.093)	0.684(0.116)***		<i>Universalism-uncentered</i>		3.839(1.452)**		3.737(1.196)**
Ref: Essround1					<i>Self-direction- uncentered</i>				
Essround2	-0.16(0.074)*	-0.178(0.567)			<i>Stimulation-uncentered</i>		1.861(1.168)		
Essround3	-0.302(0.073)***	-0.03(0.542)			<i>Hedonism-uncentered</i>		-0.393(0.541)		
Essround4	-0.346(0.076)***	0.743(0.546)			<i>Achievement-uncentered</i>		0.141(0.66)		
Essround5	-0.163(0.094)	0.441(0.579)			<i>Power-uncentered</i>		0.771(0.496)		
Essround6	-0.274(0.091)**	1.022(0.55)			21 human value items		0.299(0.499)		
Essround7	-0.499(0.09)***	-0.045(0.557)			<i>ipctiv</i>	0.0004(0.02)			
Ref: Gender/Male					<i>imprich</i>				
Gender/Female	-0.141(0.048)**	-0.446(0.318)	-0.162(0.046)***		<i>ipeqopt</i>	-0.078(0.023)***		-0.076(0.022)***	
Ref: Marital status/Married					<i>ipshabt</i>				
Mar/Separated/divorced/widowed	0.126(0.069)	0.753(0.509)			<i>impsafe</i>	0.495(0.026)***		0.506(0.026)***	
Mar/Single	0.12(0.067)	-0.781(0.472)			<i>impdiff</i>	0.0574(0.022)*			
Ref: Education/Primary education					<i>iprule</i>				
Edu/Secondary education	-0.1(0.085)	0.476(0.972)	-0.118(0.084)		<i>ipudrst</i>	-0.1532(0.021)***		-0.133(0.019)***	
Edu/University education	-0.567(0.089)***	-0.039(0.979)	-0.596(0.088)***		<i>ipmodst</i>	-0.0619(0.022)**		-0.07(0.019)***	
Ref: Happy/ Unhappy					<i>iprule</i>				
Happy/Neutral	0.288(0.145)*	0.65(0.857)	0.061(0.126)		<i>ipudrst</i>	-0.108(0.02)***		-0.104(0.018)***	
Happy/Happy	0.019(0.151)	0.341(0.904)	-0.262(0.124)*		<i>ipmodst</i>	0.213(0.025)***		0.215(0.024)***	
Ref: Lifesatisfaction/Unsatisfied					<i>ipgdtime</i>				
Lifesat/Neutral	-0.332(0.128)**	-0.886(0.658)			<i>impfree</i>	-0.013(0.021)		0.011(0.022)	
Lifesat/Satisfied	-0.403(0.134)**	-1.069(0.707)			<i>iphplpl</i>	-0.073(0.023)**		-0.085(0.022)***	
Ref: Religion/Not religious & Weak					<i>ipsuces</i>				
Religion/Moderate	-0.084 (0.052)	-0.494(0.349)			<i>ipstrgv</i>	0.088(0.028)**		0.099(0.027)***	
Religion/ Rather religious and Very religious	-0.267(0.086)**	-0.054(0.455)			<i>ipadvnt</i>	0.089(0.024)***		0.098(0.021)***	
Ref: Citizenship/Yes					<i>ipadvnt</i>				
Ctzsh/No	-0.177(0.147)	0.056(0.428)			<i>ipbhprp</i>	-0.133(0.019)***		-0.136(0.019)***	
Ref: Fatherborn/yes					<i>ipadvnt</i>				
Fatherborn/no	0.007(0.094)	0.392(0.618)			<i>ipbhprp</i>	-0.047(0.023)*			
Ref: Motherborn/Yes					<i>ipbhprp</i>				
Motherborn/No	0.119(0.092)	0.46(0.63)			<i>iprspt</i>	0.025(0.02)		0.025(0.02)	
Ref: Political-interest/ very interested					<i>iprspt</i>				
Polint/hardly interested	0.34(0.05)***	-0.266(0.387)	0.352(0.05)***		<i>iplylfr</i>	-0.037(0.022)		-0.037(0.022)	
Polint/not at all interested	0.478(0.091)***	1.237(0.716)	0.492(0.09)***		<i>impenv</i>	-0.106(0.03)***		-0.1(0.03)***	
Ref: Left-right-scale/ Left					<i>imptrad</i>				
Lrscale/Neutral	0.449(0.061)***	0.267(0.363)	0.436(0.06)***		<i>impfun</i>	0.017(0.022)		-0.113(0.017)***	
Lrscale/Right	0.344(0.054)***	0.937(0.378)*	0.314(0.053)***			-0.126(0.018)***			
Ref: Household-income/ Living comfortably					<i>impfun</i>				
hhif/Coping on present income	0.199(0.049)***	0.435(0.324)	0.222(0.048)***			0.0103(0.025)			
hhif/Difficult on present income	0.251(0.092)**	0.632(0.5)	0.302(0.09)						
hhif/Very difficult on present income	0.489(0.178)***	-0.586(0.799)	0.532(0.176)**						
Threshold coefficients									
Allow many to come and live here Allow some	-1.453(0.276)	3.701(2.987)	-0.972(0.203)	3.379 (1.230)					
Allow some Allow a few	1.638(0.276)	6.759(3.021)	2.097(0.205)	5.826(1.285)					
Allow a few Allow none	3.885(0.287)	9.152 (9.152)	4.337(0.219)	7.993(1.405)					

Note* List of items -1) ipctiv- Important being creative; 2) imprich- Important being rich; 3)ipeqopt- Important to have equal opportunities; 4)ipshabt- Important to show abilities; 5)impsafe- Important being safe; 6)impdiff- Important to listen to different people; 7) iprule- Important to follow rules; 8) ipudrst- Important to understand others; 9)ipmodst- Important to be modest; 10)ipgdtime- Important to have a good time; 11)impfree- Important to be free; 12) iphplpl- Important to help people; 13) ipsuces- Important to be successful; 14)ipstrgv- Important to have a strong government; 15)ipadvnt- Important to be adventurous; 16) ipbhprp- Important to behave properly; 17)iprspt- Important to respect others; 18) iplylfr- Important to be loyal to friends and family; 19) impenv- Important to care for the environment; 20) imptrad- Important to follow traditions; 21) impfun- Important to have fun in life.

Table 6h. Table of ordinal regression coefficients for the attitudinal question “allow different” in Swedish responses (majority and minority samples)

Note: (*p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001

6.5 Results for the second attitudinal question

The regression coefficients tables, for the three countries, on the effect of predictors using cumulative logit model on the second attitudinal question “Immigration worse or bad for the country (*country worse/better*)” shown and interpreted in this section.

Positive coefficients indicate a tendency for negative attitudes (more supportive on “immigration *worse* for country”) and negative coefficients highlight positive attitudes (immigration “*better for country*”).

6.5.1 UK: Immigration worse or better for the country (IMWBCNT)

Table 6i. shows regression coefficients of the UK majority and minority samples using the *fourth model*. In the final model for majority data, the socio-demographic factors that were found significant in predicting the attitudinal question “immigration worse/better” included *time –ESS round, gender, marital status, education, happiness, life satisfaction, religion, citizenship, father’s origin, mother’s origin, political interest, left/right wing orientation and household income feel*. In addition, there were eleven human value items that were found to be significant predictors to the same question and included: *important being rich, important that people are treated equally and have equal opportunities, important showing abilities, important to live in safe and secure surrounding, important following rules, important to understanding different people, important being free, important helping other people, important that government is strong, important to care for the environment, important to follow tradition*.

However, for the minority respondents the only socio-demographic factors that were significant were *happiness, father’s origin, mother’s origin and left/right wing orientation*. There were also four human value items that were significant and included *important that people are treated equally and have equal opportunities, important to live in safe and secure surrounding, important to behave properly and important to get respect from others*.

From the coefficient table below it can be noted that *age* shows no effect for both the majority and minority samples.

In considering the time variable, an effect can be observed for the majority sample but not for the minority sample. In comparison to the first ESS round (2002) there was more negative views in the next two rounds, 2006 and 2008, however, the effect return to 2002 levels at the sixth and seventh sweeps.

The respondents in the majority group that were more supportive on “immigration is worse for country” were associated with being female, less educated, hardly or not at

all interested in politics, belonging to right wing political orientation and those that find hard to cope with the present income. In contrast, positive attitudes were associated with more educated, single, happier, more religious respondents, as well as with those that selected being more satisfied in life, not having a citizenship and having father and mother of different origin to the living country.

On the other hand human value items that showed more tendency to predict negative attitudes were important being rich, important being safe, important to follow rules, important to understand others, important to be free, important to help other people, important to have strong government and important to follow tradition. In contrary, positive predictors to the same question were important people are treated equally and have equal opportunities, important to show abilities and important to care for the environment.

For the minority sample, socio-demographic predictors that showed positive effect to the same question were respondents that declared themselves as happy and had both parents from a different country of origin to the UK. Whereas, a strong negative effect was associated with right wing political orientation.

Negative attitudes to this immigration question were also noted with two human value items, important being safe and important to behave properly. In contrast, positive human value item predictors were people are treated equally and have equal opportunities and important to get respect from others.

UK- Country made better (0) or worse (10) place to live by people coming to live here from other countries ? (IMWBCNT - 11 point scales)									
Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)	Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)
Ref: Age15-24					21 human value items				
Age 25-34	0.121(0.066)	0.048(0.194)			ipcrtiv	-0.018(0.016)	-0.041(0.064)		
Age 35-44	0.113(0.074)	0.04(0.235)			imprich	-0.073(0.016)***	-0.009(0.059)	-0.058(0.015)***	
Age 45-54	0.161(0.079)*	0.348(0.262)			ipeqopt	0.324(0.018)***	0.207(0.085)*	0.316(0.018)***	0.285(0.07)***
Age 55-75	0.336(0.08)***	0.487(0.292)			ipshabt	0.056(0.018)**	0.079(0.062)	0.084(0.015)***	
Age 76+	0.398(0.105)***	0.701(0.508)			impsafe	-0.075(0.017)***	-0.159(0.06)*	-0.082(0.016)***	-0.154(0.05)**
Ref: Essround1									
Essround2	-0.154(0.06)*	-0.113(0.239)	-0.151(0.062)*		impdiff	0.001(0.017)	0.136(0.06)*		
Essround3	0.191(0.05)***	0.389(0.225)	0.199(0.056)***		ipfrule	-0.076(0.015)***	-0.001(0.057)	-0.076(0.014)***	
Essround4	0.113(0.05)	0.155(0.226)	0.139(0.059)*		ipudrst	0.232(0.02)***	0.042(0.076)	-0.076(0.02)***	
Essround5	-0.001(0.078)	-0.035(0.28)	0.025(0.078)		ipmodst	-0.038(0.016)*	0.002(0.063)		
Essround6	-0.313(0.08)***	-0.431(0.287)	-0.282(0.08)***		ipgdtim	0.01(0.017)	-0.003(0.061)		
Essround7	-0.061(0.077)	0.158(0.256)	-0.026(0.077)		impfree	-0.073(0.019)***	-0.082(0.071)	-0.086(0.018)***	
Ref: Gender/Male									
Gender/Female	0.162(0.039)***	-0.033(0.141)	0.146(0.03)***		iphlppl	-0.119(0.023)***	-0.103(0.09)	-0.135(0.02)***	
Ref: Marital status/Married									
Mar/Separated/divorced/widowed	0.014(0.054)	0.188(0.229)	0.06(0.052)		ipsuces	0.038(0.018)*	0.103(0.06)		
Mar/Single	-0.2(0.056)***	0.051(0.19)	-0.274(0.046)***		ipstrgv	-0.22(0.01)***	-0.105(0.071)	-0.233(0.017)***	
Ref: Education/Primary education									
Edu/Secondary education	0.522(0.122)***	0.509(0.32)	0.504(0.121)***		ipadvnt	-0.011(0.0174)	-0.073(0.059)		
Edu/University education	0.051(0.122)	0.301(0.3)	-0.005(0.121)		ipbhprp	-0.007(0.018)	-0.13(0.07)		-0.158(0.058)**
Ref: Happy/ Unhappy									
Happy/Neutral	-0.261(0.086)**	-0.268(0.314)	-0.261(0.086)**	-0.674(0.255)**	iprspot	0.034(0.016)*	0.175(0.06)**		0.184(0.05)***
Happy/Happy	-0.571(0.092)***	-0.976(0.335)**	-0.55(0.092)***	-1.414(0.258)***	iplylfr	-0.07(0.024)**	-0.058(0.08)		
Ref: Lifesatisfaction/Unsatisfied									
Lifesat/Neutral	-0.33(0.073)***	-0.497(0.241)	-0.34(0.073)***		impenv	0.1(0.019)***	0.16(0.06)*	0.074(0.018)***	
Lifesat/Satisfied	-0.508(0.08)***	-0.712(0.27)**	-0.519(0.08)***		imptrad	-0.112(0.015)***	-0.016(0.06)	-0.126(0.015)***	
Ref: Religion/Not religious & Weak									
Religion/Moderate	-0.246(0.042)	-0.011(0.168)	-0.232(0.041)***		impfun	-0.058(0.018)**	-0.052(0.06)		
Religion/ Rather religious and Very religious	-0.462(0.061)***	-0.239(0.199)	-0.427(0.06)***		<p>Note* List of items -1) ipcrtiv- Important being creative; 2) imprich- Important being rich; 3)ipeqopt- Important to have equal opportunities; 4)ipshabt- Important to show abilities; 5)impsafe- Important being safe; 6)impdiff-Important to listen to different people; 7) ipfrule- Important to follow rules; 8) ipudrst- Important to understand others; 9)ipmodst- Important to be modest; 10)ipgdtim- Important to have a good time; 11)impfree- Important to be free; 12) iphlppl- Important to help people; 13) ipsuces- Important to be successful; 14)ipstrgv- Important to have a strong government; 15)ipadvnt- Important to be adventurous; 16) ipbhprp- Important to behave properly; 17)iprspot- Important to respect others; 18) iplylfr- Important to be loyal to friends and family; 19) impenv- Important to care for the environment; 20) imptrad- Important to follow traditions; 21) impfun- Important to have fun in life.</p>				
Ref: Citizenship/Yes									
Ctzsh/No	-0.363(0.104)***	0.111(0.176)	-0.389(0.104)***						
Ref: Fatherborn/yes									
Fatherborn/no	-0.328(0.081)***	-0.64(0.225)**	-0.342(0.081)***	-0.847(0.21)***					
Ref: Motherborn/Yes									
Motherborn/No	-0.304(0.081)***	-0.771(0.231)***	-0.311(0.081)***	-0.732(0.21)***					
Ref: Political-interest/ very									
Poltint/hardly interested	0.308(0.042)***	0.231(0.154)	0.306(0.042)***						
Poltint/not at all interested	0.696(0.056)***	0.506(0.205)*	0.697(0.056)***						
Ref: Left-right-scale/ Left									
Lrscale/Neutral	0.339(0.045)***	0.455(0.154)**	0.335(0.045)***	0.549(0.144)***					
Lrscale/Right	0.304(0.05)***	0.175(0.181)	0.316(0.05)***	0.145(0.17)					
Ref: Household-income/ Living comfortably									
hhif/Coping on present income	0.192(0.04)***	0.46(0.154)**	0.188(0.04)***						
hhif/Difficult on present income	0.296(0.061)***	0.029(0.204)	0.278(0.06)***						
hhif/Very difficult on present income	0.535(0.117)***	-0.134(0.344)	0.517(0.117)***						
Threshold coefficients									
Better place to live 1									
1 2	-4.389(0.21)	-3.612(0.62)	-4.437(0.2)	-4.228(0.378)					
2 3	-3.631(0.21)	-2.990(0.61)	-3.679(0.2)	-3.624(0.37)					
3 4	-2.461(0.21)	-1.868(0.61)	-2.511(0.2)	-2.531(0.364)					
4 5	-1.595(0.21)	-1.181(0.61)	-1.64(0.19)	-1.871(0.362)					
5 6	-0.973(0.2)	-0.559(0.61)	-1.02(0.19)	-1.291(0.36)					
6 7	0.266(0.2)	0.745(0.61)	0.2(0.19)	-0.067(0.353)					
7 8	0.902(0.2)	1.217(0.61)	0.83(0.19)	0.379(0.352)					
8 9	1.57(0.21)	2.003(0.61)	1.505(0.19)	1.116(0.356)					
9 Worse place to live	2.368(0.21)	2.524(0.62)	2.301(0.2)	1.602(0.363)					
	3.048(0.21)	3.152(0.63)	2.98(0.2)	2.192(0.38)					

Table 6i. Table of ordinal regression coefficients for the attitudinal question “country worse/better” in UK responses (majority and minority samples)

Note: (*p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001

6.5.2 Germany: Immigration worse or better for the country (IMWBCNT)

On the attitudinal question whether “immigration is worse or better for the country” recall that the *fourth model* (21 items model) showed the best fit for the majority sample, whereas the *first model* (explanatory variables only) was the best fit model for the minority sample.

Table 6j. shows regression coefficients of the cumulative logit model for the German majority and minority samples. In the final model for the majority sample, the socio-demographic factors that were found significant in predicting the attitudinal question “immigration worse/better” included *time –ESS round, marital status, education, happiness, life satisfaction, political interest, left/right wing orientation and feeling about household income*. In addition, there were eight human value items that were found to be significant predictors to the same question and included: *important that people are treated equally and have equal opportunities, important to live in safe and secure surrounding, important to follow rules, important to understand different people, important being free, important that government is strong, important to care for the environment, important to have fun in life*.

For the minority respondents only two socio-demographic factors were significant, namely *mother’s origin and political interest*.

From the coefficient table it can also be noted that *age, religion, citizenship, and fathers and mother’s country of origin* shows no effect on both, majority and minority.

In examining the time variable, only for the majority sample can an effect be observed but this is not evident for the minority sample. In comparison to the first ESS round (2002) there were more negative views in the next two rounds, 2004 and 2006, however, more positive attitudes can be seen in later rounds, 2012 and 2014, with the latter year not being significantly different from 2002.

Respondents in the majority group that were more supportive on “immigration is worse for country” were associated with not being single, less educated, less happy, less satisfied with life, hardly or not at all interested in politics, belonging to right wing political orientation and those that find hard to cope with the present income.

In contrast, positive attitudes were associated with more educated, single or separated, happier, as well as with those that selected being more satisfied in life.

On the other hand human value items that showed more tendency to predict negative attitudes were important being safe, important to follow rules, important to be free, important to have strong government and important to follow tradition. In contrary, positive predictors to the same question were important people are treated equally and have equal opportunities, important to understand others and important to care for the environment.

For the minority sample, socio-demographic predictors that showed more positive view towards immigration were respondents whose mother was of a different country of origin to the host country. Whereas, a strong negative effect was associated with not being interested in politics.

Germany- Country made better (0) or worse (10) place to live by people coming to live here from other countries ? (IMWBCNT - 11 point scales)									
Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)	Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)
Ref: Age15-24					21 human value items				
Age 25-34	0.018 (0.06)	-0.069(0.23)			ipcrtiv	-0.026(0.016)			
Age 35-44	0.012(0.066)	-0.442(0.257)			imprich	-0.027(0.015)			
Age 45-54	0.007(0.07)	0.354(0.287)			ipeqopt	0.237 (0.018)***		0.239(0.017)***	
Age 55-75	0.193(0.072)**	0.372(0.311)			ipshabt	0.043(0.015)**			
Age 76+	0.11(0.097)	0.286(0.546)			impsafe	-0.084(0.016)***		-0.097(0.015)***	
Ref: Essround1					impdiff	-0.016(0.015)			
Essround2	0.104(0.053)	-0.162(0.254)	0.118(0.053)*		ipfrule	-0.057(0.013)***		-0.07(0.012)***	
Essround3	0.245(0.053)***	0.221(0.245)	0.254(0.053)***		ipudrst	0.226(0.02)***		0.214(0.018)***	
Essround4	-0.163(0.053)**	-0.222(0.248)	-0.155(0.053)**		ipmodst	-0.005(0.015)			
Essround5	0.019(0.07)	0.159(0.322)	0.034(0.069)		ipgdtim	-0.026(0.019)			
Essround6	-0.288(0.067)***	-0.216(0.319)	-0.28(0.066)***		impfree	-0.072(0.019)***		-0.085(0.018)***	
Essround7	-0.103(0.067)	0.124(0.297)	-0.098(0.066)		iphlppl	-0.009(0.02)			
Ref: Gender/Male					ipsuces	-0.02(0.016)			
Gender/Female	0.043(0.035)	0.225(0.151)			ipstrgv	-0.225(0.016)***		-0.238(0.015)***	
Ref: Marital status/Married					ipadvnt	0.038(0.015)*			
Mar/Separated/divorced/widowed	-0.085(0.049)	-0.162(0.229)	-0.064(0.047)		ipbhprp	-0.023(0.015)			
Mar/Single	-0.319(0.052)***	-0.15(0.227)	-0.389(0.042)***		iprspt	0.007(0.014)			
Ref: Education/Primary education					iplylfr	-0.004(0.025)			
Edu/Secondary education	-0.346(0.067)***	-0.192(0.244)	-0.375(0.063)***		impenv	0.133(0.018)***		0.117(0.017)***	
Edu/University education	-0.69(0.071)***	-0.254(0.255)	-0.734(0.065)***		imptrad	-0.022(0.014)			
Ref: Happy/ Unhappy					impfun	-0.037(0.016)*		-0.042(0.013)**	
Happy/Neutral	-0.435(0.07)***	-0.98(0.294)***	-0.414(0.07)***						
Happy/Happy	-0.675(0.076)***	-1.208(0.321)***	-0.66(0.07)***						
Ref: Lifesatisfaction/Unsatisfied									
Lifesat/Neutral	-0.266(0.06)***	0.738(0.262)**	-0.274(0.06)***						
Lifesat/Satisfied	-0.325(0.065)***	0.449(0.281)	-0.327(0.06)***						
Ref: Religion/Not religious & Weak									
Religion/Moderate	-0.122(0.037)***	0.115(0.172)							
Religion/ Rather religious and Very religious	-0.147(0.052)***	-0.36(0.197)							
Ref: Citizenship/Yes									
Ctzsh/No	-0.33(0.101)**	-0.309(0.175)							
Ref: Fatherborn/yes									
Fatherborn/no	-0.186(0.07)**	-0.505(0.291)							
Ref: Motherborn/Yes									
Motherborn/No	-0.356(0.074)***	-0.653(0.285)*		-1.107(0.167)***					
Ref: Political-interest/ very interested									
Poltint/hardly interested	0.431(0.037)***	0.746(0.166)***	0.414(0.036)***	0.696(0.152)***					
Poltint/not at all interested	0.744(0.073)***	0.149(0.295)	0.735(0.072)***	0.398(0.261)***					
Ref: Left-right-scale/ Left									
Lrscale/Neutral	0.347(0.037)***	0.154(0.167)	0.353(0.037)***						
Lrscale/Right	0.627(0.045)***	0.365(0.198)	0.631(0.044)***						
Ref: Household-incomef/ Living comfortably									
hhjf/Coping on present income	0.241(0.037)***	0.264(0.198)	0.24(0.037)***						
hhjf/Difficult on present income	0.373(0.061)***	0.49(0.247)*	0.36(0.06)***						
hhjf/Very difficult on present income	0.628(0.1)***	0.703(0.359)	0.613(0.099)***						
Threshold coefficients									
Better place to live 1	-4.764 (0.195)	-4.113(0.557)	-4.768(0.166)	-3.423(0.222)					
1 2	-3.993 (0.191)	-3.36(0.545)	-3.998(0.161)	-2.704(0.188)					
2 3	-2.896 (0.188)	-2.242(0.537)	-2.902(0.158)	-1.653(0.162)					
3 4	-2.071(0.187)	-1.483(0.534)	-2.079(0.157)	-0.942(0.154)					
4 5	-1.496(0.187)	-1.009(0.533)	-1.506 (0.157)	-0.498(0.151)					
5 6	0.163(0.186)	0.337(0.53)	0.147(0.156)	0.762(0.153)					
6 7	0.796(0.186)	0.811(0.531)	0.779(0.156)	1.213(0.159)					
7 8	1.587(0.187)	1.551(0.536)	1.567(0.157)	1.922(0.18)					
8 9	2.34 (0.188)	2.464(0.554)	2.318(0.158)	2.808(0.231)					
9 Worse place to live	2.909(0.19)	2.798(0.567)	2.886(0.161)	3.136(0.259)					

Note* List of items -1) ipcrtiv- Important being creative; 2) imprich- Important being rich; 3)ipeqopt- Important to have equal opportunities; 4)ipshabt- Important to show abilities; 5)impsafe- Important being safe; 6)impdiff-Important to listen to different people; 7) ipfrule- Important to follow rules; 8) ipudrst- Important to understand others; 9)ipmodst- Important to be modest; 10)ipgdtim- Important to have a good time; 11)impfree- Important to be free; 12) iphlppl- Important to help people; 13) ipsuces- Important to be successful; 14)ipstrgv- Important to have a strong government; 15)ipadvnt- Important to be adventurous; 16) ipbhprp- Important to behave properly; 17)iprspt- Important to respect others; 18) iplylfr- Important to be loyal to friends and family; 19) impenv- Important to care for the environment; 20) imptrad- Important to follow traditions; 21) impfun- Important to have fun in life.

Table 6j. Table of ordinal regression coefficients for the attitudinal question “country worse/better” in German responses (majority and minority samples)
Note: (*p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001)

6.5.3 Sweden: Immigration worse or better for the country (IMWBCNT)

For the majority the *fourth model* (21 value items) has been best fit for the data, whereas, *third mode/ unstandardized value dimensions* has fitted the data best for the minority.

Table 6k. shows the regression coefficients for the cumulative logit model for the Swedish majority and minority samples. In the final model for the majority data, the socio-demographic factors that were found to be significant in predicting the attitudinal question “immigration worse/better” were *education, happiness, religion, citizenship, father’s origin, political interest, left/right wing orientation.*

In addition, there were nine human value items that were found to be significant predictors to the same question and included: *important being rich, important that people are treated equally and have equal opportunities, important showing abilities, important to live in safe and secure surrounding, important following rules, important to understanding different people, important that government is strong, important to seek adventure and have an exciting life, important to follow tradition.*

Whereas for the minority respondents, only three socio-demographic factors were significant, namely *gender, education and left/right wing orientation.* There was only stimulation as a human value that was significant.

From the coefficient table it can be noted that *age, time variable, marital status, life satisfaction, citizenship, mother’s origin, and the household income feel* shows no effect for both the majority and minority samples

Respondents in the majority group that were more supportive of “immigration is worse for the country” were associated with those less educated, hardly or not at all interested in politics and having a right wing political orientation. In contrast, positive attitudes towards immigration were associated with more educated,

happier, more religious respondents, and having father of a different country of origin to Sweden.

On the other hand human value items that showed more tendency to predict negative attitudes were important being rich, important being safe, important to follow rules, important to have strong government and important to follow tradition.

In contrast, positive predictors to the same question were important people are treated equally and have equal opportunities, important to show abilities and important to understand others.

For the minority sample, socio-demographic predictors that showed a more positive attitude to immigrations were respondents that declared themselves as more educated and female.

Whereas, negative views were associated with right wing political orientation.

More negative views were also noted with one human value that of *stimulation*.

Sweden- Country made better (0) or worse (10) place to live by people coming to live here from other countries ? (IMWB/CNT - 11 point scales)									
Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)	Variables	Full model (Majority)	Full model (Minority)	Final model (Majority)	Final model (Minority)
Ref: Age15-24					Unstandardised Human Values				
Age 25-34	-0.014 (0.041)	-0.723 (0.388)			Security-uncentered		-0.889(0.497)		
Age 35-44	-0.013 (0.044)	-1.258 (0.491)*			Conformity-uncentered		-0.545(0.413)		
Age 45-54	0.059 (0.047)	-0.64 (0.486)			Tradition-uncentered		0.402(0.513)		
Age 55-75	0.041 (0.048)	-0.617 (0.507)			Benevolence-uncentered		-1.49(1.671)		
Age 76+	0.218 (0.068)**	-0.754 (0.912)			Universalism-uncentered		0.405(1.255)		
Ref: Essround1					Self-direction-uncentered		1.735(1.036)		
Essround2	0.072(0.037)	-0.046 (0.492)			Stimulation-uncentered		-1.284(0.486)**		-0.874(0.363)*
Essround3	0.078(0.037)*	0.619 (0.461)			Hedonism-uncentered		0.111(0.546)		
Essround4	0.041(0.038)	0.148 (0.462)			Achievement-uncentered		0.686(0.444)		
Essround5	-0.043(0.048)	1.016 (0.475)*			Power-uncentered		0.149(0.45)		
Essround6	-0.03(0.046)	0.825 (0.472)			21 human value items				
Essround7	-0.026(0.046)	-0.449 (0.461)			ipcrtiv	-0.023(0.011)*			
Ref: Gender/Male					imprich	-0.048(0.012)***		-0.043(0.01)***	
Gender/Female	-0.062(0.024)*	-0.793(0.27)**		-0.616(0.235)**	ipeqopt	0.258(0.013)***		0.262(0.01)***	
Ref: Marital status/Married					ipshabt	0.047(0.011)***		0.067(0.009)***	
Mar/Separated/divorced/widowed	0.045(0.035)	0.434(0.423)			impsafe	-0.082(0.01)***		-0.078(0.01)***	
Mar/Single	0.029(0.034)	-0.122(0.412)			impdiff	-0.014(0.011)			
Ref: Education/Primary education					ipfrule	-0.079(0.01)***		-0.073(0.009)***	
Edu/Secondary education	-0.116(0.044)**	-0.368(0.777)	-0.156(0.041)***	-0.892(0.696)	ipudrst	0.137(0.012)***		0.14(0.01)***	
Edu/University education	-0.393(0.046)***	-1.023(0.769)	-0.452(0.04)***	-1.727(0.68)*	ipmodst	-0.007(0.01)			
Ref: Happy/ Unhappy					ipgdtim	-0.002(0.011)			
Happy/Neutral	-0.069(0.074)	-0.63(0.66)	-0.149(0.06)***		impfree	-0.012(0.011)			
Happy/Happy	-0.335(0.078)***	-1.085(0.713)	-0.435(0.06)***		iphlppl	0.04(0.014)**			
Ref: Lifesatisfaction/Unsatisfied					ipsuces	0.03(0.012)*			
Lifesat/Neutral	-0.106 (0.065)	0.076(0.535)			ipstrgv	-0.061(0.01)***		-0.057(0.009)***	
Lifesat/Satisfied	-0.106(0.068)	0.349(0.578)			ipadvnt	-0.028(0.011)*		-0.031(0.009)***	
Ref: Religion/Not religious & Weak					ipbhprp	0.022(0.01)*			
Religion/Moderate	-0.12(0.026)***	0.083(0.296)	-0.118(0.02)***		iprspot	0.017(0.011)			
Religion/ Rather religious and Very religious	-0.139(0.044)**	-0.026(0.395)	-0.13(0.04)**		iplylfr	-0.03(0.015)			
Ref: Citizenship/Yes					impenv	0.025(0.011)*			
Ctzsh/No	-0.118(0.075)	-0.568(0.363)			imptrad	-0.088(0.009)***		-0.082(0.008)***	
Ref: Fatherborn/yes					impfun	-0.008(0.012)			
Fatherborn/no	-0.17(0.048)	-0.874(0.578)	-0.21(0.032)***						
Ref: Motherborn/Yes									
Motherborn/No	-0.004(0.046)	1.064(0.59)							
Ref: Political-interest/ very interested									
Poltint/hardly interested	0.252(0.026)***	-0.079(0.32)	0.242(0.025)***						
Poltint/not at all interested	0.34(0.046)***	1.688(0.591)**	0.344(0.045)***						
Ref: Left-right-scale/ Left									
Lrscale/Neutral	0.232(0.031)***	0.209(0.312)	0.229(0.03)***	0.395(0.281)					
Lrscale/Right	0.166(0.027)***	1.121(0.321)***	0.165(0.02)***	1.083(0.29)***					
Ref: Household-income/ Living comfortably									
hhif/Coping on present income	0.077 (0.025)**	-0.143(0.273)							
hhif/Difficult on present income	0.102(0.046)*	-0.041(0.446)							
hhif/Very difficult on present income	0.218(0.088)*	1.228(0.711)							
Threshold coefficients									
Better place to live 1	-2.05(0.14)	-4.726(2.33)	-2.266(0.104)	-4.378(0.919)					
1 2	-1.632(0.14)	-4.102(2.32)	-1.849(0.103)	-3.802(0.911)					
2 3	-0.939(0.13)	-2.733(2.32)	-1.158(0.102)	-2.57(0.896)					
3 4	-0.397(0.13)	-1.844(2.31)	-0.62(0.102)	-1.783(0.888)					
4 5	-0.064(0.13)	-1.188(2.31)	-0.29(0.102)	-1.216(0.884)					
5 6	0.826(0.14)	0.199(2.31)	0.594(0.102)	0.011(0.889)					
6 7	1.155(0.14)	0.557(2.32)	0.92(0.103)	0.343(0.895)					
7 8	1.581(0.14)	1.54(2.33)	1.341(0.103)	1.263(0.933)					
8 9	1.97(0.14)	2.168(2.35)	1.729(0.105)	1.829(0.979)					
9 Worse place to live	2.281(0.14)	3.079(2.4)	2.037(0.109)	2.648(1.103)					

Note* List of items - **1) ipcrtiv**- Important being creative; **2) imprich**- Important being rich; **3) ipeqopt**- Important to have equal opportunities; **4) ipshabt**- Important to show abilities; **5) impsafe**- Important being safe; **6) impdiff**- Important to listen to different people; **7) ipfrule**- Important to follow rules; **8) ipudrst**- Important to understand others; **9) ipmodst**- Important to be modest; **10) ipgdtim**- Important to have a good time; **11) impfree**- Important to be free; **12) iphlppl**- Important to help people; **13) ipsuces**- Important to be successful; **14) ipstrgv**- Important to have a strong government; **15) ipadvnt**- Important to be adventurous; **16) ipbhprp**- Important to behave properly; **17) iprspot**- Important to respect others; **18) iplylfr**- Important to be loyal to friends and family; **19) impenv**- Important to care for the environment; **20) imptrad**- Important to follow traditions; **21) impfun**- Important to have fun in life.

Table 6k. Table of ordinal regression coefficients for the attitudinal question “country worse/better” in Swedish responses

Note: (*p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001)

Majority						
Country	UK	UK	DE	DE	SE	SE
Immigration question	Allow different(+)	Country worse (-) /better (+)	Allow different(+)	Country worse (-) /better (+)	Allow different(+)	Country worse (-) /better (+)
21 Human values items						
Being Creative						
Being rich	- ***	- ***			- ***	- ***
Having equal opportunities	+ ***	+ ***	+ ***	+ ***	+ ***	+ ***
Show abilities		+ ***				+ ***
Being safe	- ***	- ***	- ***	- ***	- ***	- ***
Listen to different ppl					- ***	
Follow rule		- ***	- ***	- ***	- ***	- ***
Understand others	+ ***	- ***	+ ***	+ ***	+ ***	+ ***
Have a good time						
Be free		- ***		- ***	- ***	
Help people		- ***			+ ***	
Be successful						
Have strong government	- ***	- ***	- ***	- ***	- ***	- ***
Be adventurous						- ***
Behave properly			- ***			
Get respect from others						
Be loyal to friends and family					- ***	
Care for the environment		+ ***	+ ***	+ ***		
Respect traditions	- ***	- ***			- ***	- ***
Have fun	- ***			- ***		

Table 6m. Human value directions using regression results for the majority in both attitudinal questions in the UK, DE and SE. Note: (* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$)

6.5.4 **Summary of the human value directions for majority in both items**

Table 6m. is a summary of the similarities and differences of human values in both attitudinal questions using majority sample across the UK, Germany and Sweden.

In general, the table shows that, with a few exceptions the significant items are similar for all three countries. Thus “having equal opportunities” is positive and significant for all three countries for both attitudinal items. On the other hand, ‘being safe’ and ‘having a strong government’ are negative and significant in all three countries. Some other items such as ‘understanding others’ , ‘help people’ and ‘be free’ show a change in sign across countries and other items such as ‘respect traditions’, ‘have fun’ and ‘being rich’ are significant for some countries and not for others.

6.6 Discussion

The above analyses give a lot of detail, and this section has the aim of integrating the results over the two attitudinal questions, the three countries and the two samples (majority and minority). I first focus on the analytic approach. I have carried out a country by country analysis, with separate models being fitted for each combination of country, attitudinal question and sample. The results demonstrate that the results appear to vary by country, by sample and by question. The answer as to which factors affect attitudes is not simple. Most previous studies treat the data with country as a random effect in a multi-level model, meaning that the effect of other covariates are assumed to be same across country. The appearance of rather different results in each country suggests that this multi-level approach is flawed and is over simplistic, leading to inaccurate representation of the model. For example Davidov et al. (2008) and Davidov and Meuleman (2012) examined the association between human values and attitudes towards immigration using ESS a multilevel model was used to investigate this, partly because a large number of countries, 19 and 20 respectively, were included in the study. My results suggest that a more nuanced approach with every country analysed separately will be a better approach. Moreover, Davidov et al. (2008) and Davidov and Meuleman (2012) studies included only a few human values and corrected them for individual differences following the Schwartz recommendation. However, I investigated whether this approach gave the best fit by fitting five different models where the human value items were included in different ways. When the five models were compared using BIC, it was found that *model four*, 21 human value items as single predictors, fitted that data best for both the UK majority and minority samples. The same result was seen in both attitudinal questions. Whereas in Germany *model four* also fitted majority data best, but not minority data, where *model one* (no human value items) seem to be the best fit. The same result was seen in both attitudinal questions. Similarly, *model four* showed best fit for majority Swedish data, but *model three* (unstandardized model where means are not centred) fitted data best, i.e., according to its lowest BIC. The same result was seen in both attitudinal questions. Thus in no case did the standardised values give the best fit, I have presented my reservations about centering and standardising the Schwartz human values elsewhere in this thesis; and these empirical results support my view that the individual items or the unstandardized

values provide more understanding of immigration attitudes. I also tried a latent class representation of human values, and this method failed in comparison to using the individual items or the unstandardized values. Additionally, I think it is important to include all human values or items in the analysis rather than pre-selecting a subset of human values *a priori*. I have identified that there were considerable differences in the effects of the factors that predicted attitudes to immigration between United Kingdom (UK), Germany (DE) and Sweden (SE) majority, and also difference were observed depending on whether respondents were asked if they would allow either “Allow many/few of different race/ethnic group form majority” or “immigration worst/better for country”. We now investigate each factor one at a time.

Political orientation

Political orientation was the only set of socio-demographic predictors that showed less supportive attitudes to immigration in both attitudinal questions “allow different” and “immigration worst/better”. This was apparent in all *three countries* and for both majority and minority respondents. Political orientation covers the variables of political interest and left/right wing orientation. I found that respondents that were *less interested in politics* and/or had a *right wing political orientation* were more likely to have negative views toward immigration. This effect has been reported by others. The political context of the destination country has been known to influence attitudes towards the minority population and particularly, individuals that more right wing views have been associated with less favourable attitudes to immigration and this has been reported in a number of studies (Semyonov et al., 2008; Semyonov et al., 2006; Schneider, 2008). In addition, it has been suggested that negative attitudes to immigrants are likely to increase in countries where the presence of right wing-political parties and in Western Europe hostility towards the “foreign” population is fuelled by political mobilisation of extreme right-wing political parties (Lubbers et al., 2002; Ivarsflaten, 2008; Pettigrew, 1998).

Age

Age has been reported as a good predictor in understanding attitudes to immigration for a number of reasons, and according to Dustmann and Preston (2001) one of the

three main factors influencing attitudes. First, age is a direct measure of life experience and carries a strong effect on attitudes. Second, at some stage of their life, a person's attitudes are likely to be affected by immigration due to economic considerations. For example, younger people might compete for the same jobs as immigrants. Finally, age is likely to capture a cohort effect, with perhaps older respondents belonging to a birth cohort more used to anti-immigration views. Nevertheless, age is usually negatively correlated with attitudes to immigration as older individuals are more likely to support the exclusion of out groups due to more conservative views and possibly due to lack of exposure to larger groups of immigrants (Dustmann and Preston, 2001; Gorodzeisky, 2011).

The results show that age effect in the final model is generally negative in the first question; however, there seem to be country and question specific differences. In the first question, where the respondents are asked specifically if they would allow immigrants of different race/ethnicity the effect of age was a statistically significant predictor in UK and Sweden. The older the age groups the more negative effect, i.e., less in favour of allowing immigrants in their country. However, in Germany no such effect was found for the first question. Another surprising result is that the age effect was also found for the UK minority population (but not for any of the minority samples in the other countries).

For the second question (immigration makes country worse), however, no such effect was found in any of the three countries, whether majority or minority, after variable selection.

ESS round – time effect

There was a positive shift towards immigration question with time, particularly in later years (2008 -2014), although there were country specific difference. Germany stands out as it shows positive responses to year in both question, suggesting that as year increases, they are becoming more in favour of allowing immigrants of different ethnic group or race and also at the same time think that immigration makes country better. In UK, however, time effect in regards to the “allow different” is more stable and flat, but in regards to the second question there is a positive shift in attitude on and after

2012, indicating that UK respondents also are increasingly of the view that immigration makes country better in these two last sweeps.

In Sweden, the time variable does not appear to affect attitudes in the final models, which indicate that Swedish attitudes to immigration questions do not change with time once other variables have been controlled for..

Increasingly positive attitudes to immigration might be generally expected in North/West Europe as, according to the recent ESS report on “Attitudes towards immigration and their antecedents” by Heath et al. (2016), there has been a general positive trend towards immigrants of different ethnic race or group over the period 2002- 2014. Nevertheless, country specific differences might also be expected.

Gender

The literature suggests that female respondents have been found to have less supportive attitudes to immigration as compared to their male counterparts (Dustmann and Preston, 2001; Citrin et al., 1997; Gang et al., 2002; Mayda, 2006), however, this study indicates this result depends on the country analysed, and even the opposite effect (males less supportive) can be observed. The UK female respondents had less supportive attitudes to *both* immigration questions which is in agreement with the cited work above. However, there were no differences between male and female individuals in German respondents, in neither question, suggesting gender having no predictive power in Germany.

While women are perceived to be more hostile to out-groups such as immigrants because of economic threat while men are more prone to cultural threat that immigrants might bring (Hainmueller and Hiscox, 2007b).

However, interestingly, female respondents, in Sweden had more positive attitudes to allowing in the country immigrants of different ethnic group or race compared to male counterparts. Positive attitudes of female respondents might be due to Sweden’s “first in the world” Feminist Government model where their policy promotes gender equality and equal resource allocation for both of their male and female citizens (Government-Offices-Sweden, 2017). This approach might eliminate higher assumed financial threat of immigration to female population or even it might promote more positive attitudes overall.

Education

In regards to the effect of education on attitudes towards immigration the results show that there is a consistency in the three countries and the two questions. Higher education level was associated with more positive attitudes to immigration in UK, Germany and Sweden and this is in line with previous research. It has been shown that more educated individuals are less likely to express prejudice to minority groups because immigrants generally take low skilled manual jobs, and such are seen as complementary, rather than a threat (Mayda, 2006; Sherrod, 2006; Hainmueller and Hiscox, 2007b). Secondly, education systems generally promote acceptance of different cultures and values and such educated individuals are more likely to have less stereotypical attitudes to others overall (Hainmueller and Hiscox, 2010).

Religion

In general religion as a predictor showed to be significant in predicting positive attitudes to immigration questions but only in UK and Sweden, and not in Germany where no effect was observed. Respondents that indicated that they were *more religious* were more in favour of immigration compared to those that were less or non-religious. This is in line with other studies as more religious individual are more accepting to other outgroups and such promote positive attitudes towards immigration (Billiet, 1995)

Mother's and father's origin

Individuals that are raised by immigrant parents are more exposed to different cultures and develop more understanding of towards other seen as different which makes them less hostile to immigrants overall (Finney and Peach, 2004; Goldstein and Peters, 2014; Economidou et al., 2017). Both father and mother born outside the residing country had a positive effect on the attitudes towards immigration in overall. Father's origin away from the destination country was a positive predictor in all countries, although for the first question "allow different" this was true only in Germany, whereas for the

second question “immigration worse/better” was true for Sweden and UK but not Germany.

In contrast, mother’s origin away from the destination country was a good predictor of positive attitudes for UK respondents only and not in Germany and Sweden.

Happy

Happiness has been shown to be a strong positive predictor in attitudes to immigration questions. Respondents from UK, Germany and Sweden that defined themselves as being *happy in life* were positive to both allowing immigrants of different race/ethnic group and think that immigration is good for the country when compared to individuals that defined themselves as *not happy*. Given Happiness was apparent in all countries and in both questions suggests that it is a strong predictor to positive attitudes regardless of the country respondents originate. In addition, this finding also highlights when studying attitudes to immigration researchers should also explore the effect of individual well-being which is likely to greatly influence results.

Research studies using survey data have found that happiness is associated with functioning better in society, and tend to be associated with positive cognitions and pro-social behaviours (Helliwell and Putnam, 2004; Argyle, 2013). Thus this result is perhaps to be expected from the literature.

Life satisfaction

Similarly life satisfaction has an overall positive association with attitudes to immigration but not in all countries as per happiness variable. Those that defined themselves as being satisfied with life were more positive to both immigration questions in German responses. However, positive predation was observed in UK respondents to the second question only “immigration makes country better”, whereas in Sweden life satisfaction variable played no effect. Such country specific differences may be associated with the different meaning that different countries give the term “life satisfaction”. Both happiness and life satisfaction can be associated through the idea of general well-being, and this result is similar in nature to the happiness result discussed above (Helliwell and Putnam, 2004; Argyle, 2013; Putnam, 2001).

Citizenship

Respondents declaring no-citizenship (majority data) were more supportive to immigration compared those that had citizenship. UK respondents with no-citizenship were positive to allowing immigrants of different race and ethnicity and think that immigration makes country better. Whereas, German respondents were only positive to “allow different” question. In contrast, self-defined citizenship status did not influence Swedish responses.

Marital status

When compared to married individuals, single respondents had more positive attitudes towards both allowing immigrants of different ethnic groups or race and also were more likely to think that immigration makes the country better overall. However, differences were observed between countries depending on the question asked, where single individuals were more positive to both questions in Germany, whereas positive responses were only observed in the first question in Sweden and the second question in the UK. The finding that married individuals are less favourable to immigration has been reported before and this might be due to safety concerns, particularly with those that have children (Economidou et al., 2017), although no effect has also been observed in some studies (Gorodzeisky, 2011; Semyonov et al., 2008).

Feelings towards household income

Those who felt that that coping with their household income was more difficult were more likely to have negative views on attitudes to immigration and such association was noted in all three countries and for both questions.

The only exception was for the second question “immigration makes country better/worst” which did not show such a relationship on Swedish respondents. This finding indicates that the harder the individuals find their household income to manage on, the more likely they are to oppose immigration. The economic situation of individuals have been shown to influence attitudes to immigration where higher fiscal income is seen as a positive contributor to the perception of immigrants and the opposite

effect is observed for low income individuals (Fetzer, 2000; Gang et al., 2002; Dustmann and Preston, 2004; Dustmann and Preston, 2007; Mayda, 2006). According to threat theory individuals with lower income are likely to have more negative attitudes to immigration because of competition threat, particularly for those at the bottom of the income distribution (Schneider, 2008; Goldstein and Peters, 2014)

Sociodemographic variables for the minorities

Minority respondents seem in general to follow the same pattern or responses as the majority populations in their respective residing country. However, any differences tended to be found in the level or importance of differences rather than in the direction of effect. For instance, in Sweden the effect of gender and level of education had stronger positive effect as compared to their majority counterpart. In addition, minority individuals that had a right-wing political orientation had stronger negative tendencies towards the effect of immigration in the country. Similarly, the UK minority respondents that were less interested in politics or had a right-wing political orientation were more likely to have stronger negative attitudes compared to host population. On the other hand, the positive effect of being a member of the minority group and having a mother from different origin to the destination country had a greater probability of also being positive to immigration than the majority. In contrast, to these differences German minority individuals were closely associated with majority attitudes.

Human values

The human value items that had the same negative association in both questions with immigration attitudes in all countries were *important being safe, important to live in safe and secure surroundings, important that government is strong and important to follow rules*. This suggests that the Schwartz human value dimensions of security (two items) and conformity (one item) as a reason for less supportive attitudes to immigration regardless of the immigration question analysed. This finding is in line with other studies as security and conformity value dimensions have also been linked with negative attitudes to immigration and across countries (Davidov and Meuleman, 2012; Davidov et al., 2008; Ponizovskiy, 2016; Pereira et al., 2010; Simpson et al., 2008).

Taking a different human values perspective, these items also relate strongly to the “materialist” standpoint of Inglehart.

Nevertheless, there were differences in the effect of human value dimensions depending on the attitudinal question and country. In the first question “allow different” UK an item that is unique in this question in predicting less supportive attitudes was *important to have fun*, an item in the HEDONISM value construct which contributes to two broad dimensions, Self-enhancement and Openness to Change (see diagram in Section 2.2.2).

Whereas in Sweden the item *important to try different things in life*, Stimulation dimension and *important to make own decision and be free*, Self-Direction value construct, both belonging to greater dimension OPENNESS TO CHANGE are also associated with a more negative attitude. In addition, a negative attitude was also associated with the item, *important being loyal to friends and devoted to people close* from the SELF-TRANSCENDENCE dimension. This finding contradicts the work by Davidov et al. (2008) and Davidov and Meuleman (2012) as well Ramos and Vala (2009) and (Pereira et al., 2010) where Self-transcendence was associated with positive attitudes to immigration.

This finding contradicts the above authors in two main aspects, *one* being that there is differences in the effect of values in attitudes across countries and *two*, that a value dimension, such as SELF-TRANSCEDENCE, can have positive effect in one country but no effect, or a negative effect in another country. Such differences might be related to the data processing that was suggested by Schwartz (2008) which proposed that value constructs should be mean centred. Mean centering has a tendency to reduce the power of individual items and cause biasness towards the values with the more extreme items within the greater dimension. The ability in my analysis to look at the effect of individual items rather than value constructs allows a greater nuance of human values to be detected.

In regards to human values, the common items in this study that has shown a positive association with attitudes towards the first question “allow different” in all countries is from UNIVERSALISM (important that people are treated equally and important to understand different people).

However, in Germany the third UNIVERSALISM item, Important to care for nature and environment was also a positive attitude predictor. Whereas, in Sweden one item from BENEVOLENCE (important to help people and care for others well-being) and one item from ACHIEVEMENT (important to be successful and that people recognise achievements) were also specific items that predicted positive responses to immigration.

In general, the associations of UNIVERSALISM and BENEVOLENCE value dimensions with positive attitudes to immigration in overall are in line with the above authors. However, ACHIEVEMENT dimension has not been linked with positive attitudes to immigration by other studies and such this is a new finding.

Similarly, those items that were associated with negative attitudes to the second question “Immigration makes country worse/better?” and common in UK, Germany and Sweden were items from SECURITY and CONFORMITY value constructs and specifically included *important to live in secure and safe surrounding*, *important that government is strong and important to do what is told and follow rules*. Security and conformity fall within the CONSERVATION dimension in Schwartz’s circle of human values and this finding agrees with work by previous authors mentioned above that respondents that score high in conservation tend to be less supportive to immigration. According to Davidov et al. (2008) conservation is expected to be negatively related to immigration because immigrants can bring along their customs and traditions which are perceived to be different from the majority. Thus, such immigration can be seen as an obstacle to those individuals who give a higher priority to their own customs and traditions. In addition, earlier research by Sagiv and Schwartz (1995) highlights that persons who give higher important to honouring social expectations and norms (conformity) or social order and stability (security) are likely to be less willing to accept immigrants.

In addition, the common item that was unique in showing a negative association to the second attitudinal question in UK and Germany but not Sweden was an item from Self-direction, *important to make own decision and be free*.

Furthermore, the item *important to be rich and to have money and expensive things*, from the POWER dimension was found to be negatively associated with the second

question in UK and Sweden but not in Germany. Specifically, both items from the Self-direction value construct are negatively associated with the second question in Sweden. Whereas, an item from Hedonism, important to seek fun and things that give pleasure was unique to Germany, where a negative association was found.

In addition to the results, another common item linking UK and Sweden was *important to follow tradition and customs* from the TRADITION value construct. Although Power, Self-Enhancement higher order dimension and tradition (Conservation) has been linked with negative attitudes to immigration, items from Self-direction (Openness to change) have been assumed to have positive effect (Sagiv and Schwartz, 1995).

However, it could also be expected that Self-direction can lead to a negative responses because individuals with self-direction priorities pursue excitement, novelty and challenge in life, and the presence of outgroups is perceived as threat to one's freedom and novelty goals (Duriez et al., 2002).

Interestingly, in the UK only, the human value items associated with BENEVOLENCE were generally negatively associated with both immigration questions, although it was only significant on the second question "immigration makes country worse/better?". Specifically, negative attitudes were associated with the *important to help people and care for others* items of Benevolence. While Benevolence falls within the higher order of Self-Transcendence it has been generally assumed that it would induce positive attitudes towards others, although according to Schwartz (1994) such an effect might be weak. Findings in this thesis however shows that Benevolence and this finding does not agree with the assumption that Benevolence would have a positive effect generally towards immigration and is very much county specific. This suggests that UK individuals that give priority to Benevolence have less supportive attitudes to the consequence of immigration in the country (second question). Benevolence is partially associated with individuals who think it is important to be loyal to friends and family and want to devote themselves to people close to them. Schwartz's view is that benevolence is mainly concerned with enhancement of welfare of personal contacts rather than all human beings (Schwartz, 1994) and the item *important to help people*

and care for others may only be associated with those close to them rather outgroups such as immigrants.

However, the item may not be understood in that way by the survey respondents. This may explain the contradictory results for this construct.

Similar to the first question, most items from UNIVERSALISM show a positive association towards immigration, when the second question “immigration makes country worse/better?” is considered, this was true for all countries. This indicates that these human value items are strong predictors of positive attitudes towards immigration overall. This is also in agreement with previous research (Davidov and Meuleman, 2012; Davidov et al., 2008; Pereira et al., 2010; Ramos and Vala, 2009; Ponizovskiy, 2016; Sagiv and Schwartz, 1995) and is expected, as, according to Schwartz, UNIVERSALISM value type promotes tolerance, understanding and showing concerns for welfare of all people regardless of ethnic background, and such support of immigration offers one’s possibility to achieve these motivational goals (Schwartz, 1994).

Country comparisons show that the UK also shares one human value item with Sweden in predicting positive attitudes to immigration in the second question, but not with Germany. This item was the human value item from the Achievement value construct, *important to show abilities and be admired*. There is a debate in regard to the relationship of self-achievement and attitudes to immigration as two opposing effects might be expected, that of one of threat and opportunity and, because of this, Sagiv and Schwartz (1995) originally concluded that a correlation near zero is to be expected.

However, according to both Duriez et al. (2002) and Davidov et al. (2008) a negative attitude is expected because people that consider personal success as important, through self-achievement or wealth and social power would perhaps see outgroups as a threat to this.

The finding from the UK and Sweden data when considering this item suggests that the responses from both countries see immigration as making county better and on the opportunity side rather than presenting any threats to their achievement goals.

For the minority samples, human values items were found to be good predictors on attitudes towards immigration in Sweden and UK but not in Germany, however, the total number of predictive items was significantly smaller than for the majority sample.

Similar to the majority sample, there were positive responses to the first attitudinal question “allow different” between UK and Sweden when considering items from the UNIVERSALISM dimension although different models were used for the two datasets. This indicates that the relationship between ethnic minority values and attitudes to immigration are in line with that of majority group.

Again considering the minority sample, one item from the conservation dimension, important to follow tradition predicted negative attitudes in UK only, again this is in agreement with the UK majority responses.

Additional effects can also be described. Minority attitudes to the second question “immigration makes country worse/better “ that were in line with majority responses in the UK were a positive relationship between *important that people are treated equally and have equal opportunities* (Universalism) and attitudes to immigration and negative relationship between *important to behave properly* (Conformity) and immigration attitudes.

Furthermore, the stimulation human value construct from the Swedish minority was shown to negatively associate with attitudes, again with this being in agreement with Swedish majority responses.

Interestingly, one item from the minority sample in the UK for the second attitudinal question do not seem to follow the same pattern as the majority in the UK. The item from Power construct, *important to get respect from others* predicts positive attitudes towards the question but the other item *important being rich* from the same Power dimension predicts strong negative attitudes. As highlighted above, the Power construct has been shown to be associated with negative attitudes to the outgroup but this might not be the case for minority populations. This suggests that minority individuals that prioritise Power values see other immigrants as an opportunity rather than presenting any threats to their Power goals.

To summarise, in this chapter we have investigated the link between socio-demographic factors and Schwartz's 21 human value items on attitudes to two immigration related questions of UK, German and Swedish respondents. I used the proportional odds model to test five different models using different methods of measuring human values in order to find the best model fit for each country.

This modelling approach showed that the best fit model is country specific, with different effects being shown in each of the three countries. This contradicts the multilevel modelling approach used by previous authors, who assume that the effect of human values and of other socio-demographic variables is the same across populations. I have surmised that the different immigration and cultural histories of each country may be a factor in these differences.

The results indicated that socio-demographic factors that influence attitudes to immigration are in line with previous research in this area, however, it also shows country specific differences as well as some majority vs. minority population differences.

It was shown that main factors that could be said were universal in influencing attitudes to immigration, at least in the three countries, which could be linked with negative attitudes were in individuals that were less interested in politics and or had a right-wing political orientation together with those that had difficulty coping with household income. In contrast, common positive socio-economic factors were observed and these comprised; higher educational qualification, happiness, being single, had no-citizenship and had one of the parents with background different from majority. Furthermore, the effect of the time variable was investigated and a slight increase in positive attitude shifts were recorded on the latest years, 2010 – 2014.

In regards to the link of human values with attitudes to immigration my findings show that human value constructs of conformity, tradition and security from the Conservation dimension are negatively associated with attitudes to immigration which is in line with previous research. In addition, items from universalism, which is part of Self-

Transcendence higher dimension, were also in line with previous finding of positive association.

However, in contrast to the agreement above, items from the Benevolence construct, also under the Self-Transcendence dimension did not associate with positive responses as assumed by Schwartz's theory of human value effect relationship. It was shown that these items were negatively associated with attitudes to immigration. Also, opposite to the hypothesis that items from self-direction and stimulation are positively correlated with attitudes, this results show that they can have an opposite effect in different countries.

Furthermore, these results also indicate that human value associations with attitudes might not always be universal as clear country specific differences were observed.

Chapter 7. **General Discussion**

The broad aim of this thesis was to investigate the link between human values and attitudes to immigration in the UK, Germany and Sweden. To investigate this, I chose to use data from the European Social Survey (ESS) which has consistent question on both attitudes and human values over the seven sweeps of the survey. I looked at whether human value indicators and attitudes to immigration change over time, from 2002 to 2014 using ESS data. Additionally, I also examined how human values and attitudes to immigration differ between countries. Together with this, I also investigated the effects of a wide selection of socio-demographic and political covariates on attitudes towards immigration specifically for each country. Finally, I examined whether the relationship differs between the majority or native population of a country and its minority population.

In order to achieve these aims, I set to answer the following questions in the beginning of this thesis and I will discuss my findings for each question separately;

- How do attitudes to immigration differ between selected countries?
- Are attitudes to immigration shaped by human values?
- What other covariates apart from human value indicators are important in predicting attitudes to immigration, and do these effects vary between countries and between majority and minority populations?
- Which statistical model is best for examining differences between countries?
- Thesis contributions.
- And finally, are there policy implications that can be drawn from the results of this thesis?

7.1 How do attitudes to immigration differ between selected countries?

In Chapter 4, I explored how attitudes to immigration differed between UK, Germany and Sweden, whilst additionally looking at the time trends.

There were six attitudinal questions that could have been used to explore the above question. As mentioned above the six questions measure two latent variables (Billiet and Meuleman, 2007) *Willingness to allow immigrants to the country* and *Evaluating the consequences of migration* (see Section 4.3).

In general, attitudinal questions relating to the ‘Willingness to allow immigrants to the country’ latent variable show very similar patterns of responses in all the three questions over time. However, differences in responses were also observed between countries with time (2002-2014). Swedish responses show little change over time and responding more positively but were more in favour of immigrants compared to Germany and UK respondents. The UK responses also show very little change over time, but respond most negatively to all three questions. German responses are between Sweden and UK, but interestingly show change over time.

Further differences between countries were noted in the second set of questions that evaluate the consequences of migration.

Similar to the first set of questions measuring latent variable to allow immigrants to the country, Sweden still remains most positive towards opinions on immigration impacts on the economy, followed by Germany and UK. Interestingly, for the question “if the immigration is bad or good for the economy”, German time trends were between the UK and Sweden but later they become more positive in later years. In addition, in the responses to the question of whether the “cultural life is enriched by immigration”, a clear separation of the countries over the whole period was observed with Sweden being most positive, followed by Germany and UK. In the third question, “immigration makes country better or worst place to live” Germany and UK follow very similar trends overall, with Sweden clearly separated and more in favour of the idea that immigration makes the country better. This finding is in line with the recent research by Economidou et al. (2017) where same arrangement was found. Furthermore, in the third question, “immigration makes country better or worst place to live” Germany and UK follow

very similar trends overall, with Sweden clearly separated and more in favour of the idea that immigration makes the country better. This is also in line with the recent publication by Heath et al. (2016) where it shows that Swedish responses were more positive to immigration, with UK being least positive and Germany in between.

There is thus a clear difference in the pattern of responses when respondents evaluate the consequences of migration amongst the three countries. The lowest mean scores were shown for the question regarding economic benefit as compared to questions concerning the effects of immigration on cultural life and whether immigration makes the country better. This suggests that respondents in all three countries think that there is less of a positive impact of immigration on the economy and more of a positive effect of immigration on cultural life.

7.2 Are attitudes to immigration shaped by human values?

I have approached this research question in terms of previous work of other researchers; my own results are presented in the answer to research question 7.3. While the research that have looked at the effect of different socio-demographic factors on attitudes towards immigration are extensive but there are only a few studies that have investigated how human values influence these attitudes. Human values were used as predictors to the attitudes towards immigrants because they represent the foundation that drive people's attitudes, behaviours, opinions and actions (Allport et al., 1951; Inglehart, 1977; Schwartz, 1994) and such provide a predictive and explanatory power in the analysis.

In Chapter 2 (Literature review) I explored different theories on Human Values, studies on attitudes to immigration and available surveys that particularly measure both human values and attitudes to immigration. I chose Schwartz's human value items for this study over Inglehart's cultural dimensions, because Schwartz's items are measured directly at an individual level, and are better indicators of individual changes over time and direct relationship measures with opinions, attitude and other factors. In addition, Schwartz's human value items have been part of the ESS survey, conducted every two years, across 37 countries since 2002, with high consistency in data quality, providing solid grounds for cross-country comparisons. In addition, four to five existing studies in this area use ESS data, providing means of cross-study comparisons.

Initial data exploration using only UK majority (where majority status is self-defined) data showed that there was a clear link between a range of human value items from Universalism and Conservation towards immigration in the two immigration related attitudinal questions (Chapter 4). In addition, human value items induced time effects where their effect on attitudes changed from 2002-2014. The overall effect of human values on attitudes to immigration has been also found in previous studies, particularly with positive effect of Universalism and a negative effect of the Conservation dimension (Davidov and Meuleman, 2012; Davidov et al., 2008; Ramos and Vala, 2009; Vala and Costa-Lopes, 2010). Nevertheless, not all human value-attitude relationships were in agreement with the above publications, as for example, items from

Benevolence, a Self-Transcendence did not induce positive attitudes as expected by Schwartz's theory, but opposite, negative effect was observed. Further, contradictions with the same theory of relationships were seen in items from Self-direction and Stimulation.

The finding here concludes that the effect of human values on attitudes might not always be universal and clear country difference is to be expected.

7.3 Which human values are most associated with attitudes to immigration, and does this vary between countries and between the majority and minority populations?

Firstly, it is important to note, that unlike previous researchers, I have carried out analyses for the majority and minority samples separately. I have also analysed each country separately, as I expected different relationships to exist in each country. This turned out to be the case.

In Chapter 6 I investigated the link between Schwartz's 21 human value items on attitudes towards two immigration related question for the UK, German and Swedish respondents.

My findings show that human value dimensions of conformity, tradition and security from the higher order of Conservation dimensions are negatively associated with attitudes to immigration which is in line with previous research. In addition, items from universalism, which is part of Self-Transcendence higher dimension, were also in line with previous finding of positive association.

However, in contrast to the agreement shown with previous work above, items from Benevolence, also under the Self-Transcendence dimension did not associate with positive responses as assumed by Schwartz's theory of human value effect relationship (Schwartz, 1994). It was shown that these items were negatively associated with attitudes to immigration. Also, opposite to the hypothesis that items from self-direction and stimulation are positively correlated with attitudes, these results show that they can have an opposite effect in different countries, and this finding is contradictory to existing research.

Furthermore, these results also indicate that human value associations with attitudes might not always be universal as clear country specific differences were observed and this is also dependable on attitudinal question.

For instance, one item from the dimension of HEDONISM (*important to have fun*) was unique in predicting less supportive attitudes to immigration question "allow different" in UK only but not in other countries. Whereas, unique to Sweden, were two items

from OPENNESS TO CHANGE (*important to try different things in life, important to make own decision and be free*) that were also rather strangely associated with a more negative attitude.

In addition, unique to the Swedish responses was one item from BENEVOLENCE (important to help people and care for others well-being) and one item from ACHIEVEMENT (important to be successful and that people recognise achievements) that predicted positive responses to immigration. Whereas, an item from Hedonism, important to seek fun and things that give pleasure was only found Germany, where a negative association was found in the second question “country worse/better”

There were also common items between countries, for example the negative effects of item from OPENNESS TO CHANGE (*important to make own decision and be free*) was found in the UK and Germany majority respondents but not Sweden. Furthermore, the item from CONSERVATION dimension (*important to be rich and to have money and expensive things*) was negatively associated with immigration (second question) UK and Sweden but not in Germany.

Minority respondents followed similar trends to the majority data in their respective countries. However; the total number of predictive items was significantly smaller than for the majority sample and some country specific differences were observed. For example, similar to the majority sample UNIVERSALISM dimension was associated with positive responses to the first attitudinal question “allow different” both in UK and Sweden. This indicates that the relationship between ethnic minority values and attitudes to immigration are in line with that of majority group.

Interestingly, one item from the minority sample in the UK for the second attitudinal question do not seem to follow the same pattern as the majority in the UK. The item from Power construct, *important to get respect from others* predicts positive attitudes towards the question but the other item *important being rich* from the same Power dimension predicts strong negative attitudes. As highlighted above, the Power construct has been shown to be associated with negative attitudes to the outgroup but this might not be the case for minority populations. This suggests that minority individuals that

prioritise Power values see other immigrants as an opportunity rather than presenting any threats to their Power goals.

7.4 What other covariates apart from human value indicators are important in predicting attitudes to immigration, and do these effects vary between countries and between majority and minority populations?

The results indicated that socio-demographic factors that influence attitudes to immigration are generally in line with previous research in this area; however, it also shows country specific differences as well as some majority vs. minority population differences. Although there are many factors that have been associated with attitudes to immigration and the number of studies are diverse. The range of socio-demographic that I chose in this study included four main groups; 1) individual characteristics 2) political orientation, 3) ethnicity background, and 4) household characteristics. Individual characteristics age, gender, marital status, education and religion and variables relating to political ordination and economic situation were included because they have been commonly associated with attitudes to immigration. While studies using the variables *life satisfaction, happiness, father's and mother's origin and citizenship* are limited, I chose to include these variables because I believed that they would likely be important. In addition, I chose to examine the same socio-demographic factors in minority populations in each respective country because of two main reasons, firstly, to determine whether minorities are different from majority population and secondly, to use this findings as an indicator of integration. More integrated minorities are expected to have the same value orientations and attitudes as the majority population and this in turn provides further details as to which host country minorities are more integrated.

It was shown that the main factors that could be said were universal in influencing attitudes to immigration, at least in the three countries, which could be linked with negative attitudes were in individuals that were less interested in politics and or have right-wing political orientation together with those that had difficulty coping with household income. The political context of receiving society has been known to influence attitudes to minority population and particularly, individuals that belong to the right wing political party have been associated with less favourable attitudes to immigration and this has been reported in number of studies (Semyonov et al., 2008; Semyonov et al., 2006; Schneider, 2008). In addition, negative attitudes to immigrants are likely to increase in countries where the presence of right wing-political parties and

in Western Europe hostility towards “foreign” population is fuelled by political mobilisation of extreme right-wing political parties (Lubbers et al., 2002; Ivarsflaten, 2008; Pettigrew, 1998). Economic situation of individuals has been shown to influence attitudes to immigration where higher fiscal income is seen as positive contributor to perception of immigrants and the opposite is observed in low income individuals (Fetzer, 2000; Gang et al., 2002; Dustmann and Preston, 2004; Dustmann and Preston, 2007; Mayda, 2006). According to threat theory, individuals with lower income are likely to have more negative attitudes to immigration because of competition threat, particularly for those at the bottom of the income distribution (Schneider, 2008; Goldstein and Peters, 2014)

In contrast, common positive socio-economic factors were observed and these mainly included; higher educational qualification, happiness, being single, had no-citizenship and having one of the parents with different background from the destination country. Again this finding is in line with other research (Fetzer, 2000; Gang et al., 2002; Dustmann and Preston, 2004; Dustmann and Preston, 2007; Mayda, 2006).

Furthermore, the effect of the time variable was seen and slight positive attitude shifts were recorded on the latest years, 2010 – 2014. This indicated a positive trend in the last decade.

Minority respondents seem in general to follow the same pattern or responses as the majority populations in their respective residing country and perhaps indicating more integration into the host country. However, the main differences distinguishing majority and minority populations was the level of importance socio-demographic factors played in the minority sample rather than the direction of effect. For instance, in Sweden minority female respondents with the same educational qualification had a stronger positive effect on attitudes to immigration compared to other females from the majority population. This might be associated with migrant females being more generally satisfied than their migrant male counterparts as for example the general level of satisfaction seem to be higher in young migrants and female population in overall (Mara and Landesmann, 2013).

In addition, minority individuals that had a right-wing political orientation had stronger negative tendencies towards the effect of immigration in the country. Similarly, the UK minority respondents that were less interested in politics or had a right-wing political orientation were more likely to have stronger negative attitudes compared to host population. On the other hand, the positive effect of being a member of the minority group and having a mother from different origin to the destination country had a greater probability of also being positive to immigration than the majority.

In contrast, to these differences German minority individuals were closely associated with majority attitudes.

There is a lack of studies that have investigated the differences in attitudes to immigration between majority and minority population, these findings give an indication that differences are expected and can be country specific. Such information could be used in the future to perform-cross national comparisons as an indirect indicator of integration, and perhaps shed more light to what conditions are responsible (e.g., policy initiatives) for encouraging positive attitudes in immigrant population and integration. Integration is known to reduce the hostility of the host population to immigration and at the same time is known to increase the life satisfaction of immigrants.

7.5 Which statistical model is best for examining differences between countries?

I first focus on the analytic approach. I have carried out a country by country analysis, with separate models being fitted for each combination of country, attitudinal question and sample. The results demonstrate that the results appear to vary by country, by sample and by question. The answer as to which factors affect attitudes is not simple. Most previous studies treat the data with country as a random effect in a multi-level model, meaning that the effect of other covariates are assumed to be same across country. The appearance of rather different results in each country suggests that this multi-level approach is flawed and is over simplistic, leading to inaccurate representation of the model. For example Davidov et al. (2008) and Davidov and Meuleman (2012) examined the association between human values and attitudes towards immigration using ESS a multilevel model was used to investigate this, partly because a large number of countries, 19 and 20 respectively, were included in the study. My results suggest that a more nuanced approach with every country analysed separately will be a better approach.

Some authors (Davidov and Meuleman, 2012; Davidov et al., 2008; Gorodzeisky, 2011) have used a multi-level or mixed effects model for modelling attitudes, with the assumption that the country is a random effect. This means that the effects of fixed covariates will be the same across countries, while it is possible to relax this assumption by specifying random coefficients for some of these fixed effects, and, thus allowing them to vary by country, in a complex model with many covariates, models with many random coefficients become impossible to estimate. I have therefore carried out a country by country analysis.

I used a cumulative link proportions odds model to test five different models using different representations of human value items in order to find the best model fit for each country.

This approach to analysing data provides bases that can be used to link human values to attitudes in the manner that enables researchers to understand country specific

differences. In addition, it highlights the limitations of analysis techniques such as mixed models which are commonly used. Such models can interfere with originality of the data and induce misinterpretations.

7.6 Thesis contributions

I have carried out a country by country analysis on the ESS data, with separate models being fitted to the chosen attitudinal questions for each combination of country, sample (majority/minority). The results demonstrate that the statistical relationship between the attitudes and explanatory covariates vary by country, by sample and by question. This means that a multi-level analysis (which will assume that covariates have the same effect in each country and sample) is not appropriate. Below I will be expanding each point and why is important.

This thesis has broadened the approach of examining all of Schwartz's 21 value items to investigate the assumption that their predicting power of attitudes of immigration is universal across countries. It shows that there are differences between countries, and that the effect of values on attitudes to immigration changes with time.

I have extended the multi-group latent class terminology and model structure, replacing the concept of multiple categorical groups (such as country or gender) to instead deal with changes over continuous time, allowing models for repeated cross sectional data to be developed. This has led to two new models - the linear structural homogeneity model, where the log odds ratio of the class sizes show a linear dependence over time, and the linear partial homogeneity model, where the log-odds of the profile probabilities show linear dependence over time. Such work is new to the latent class literature and is a very useful advance.

In none of the three countries and subsamples of the datasets was the partial homogeneity model chosen as the preferred latent class model. This means that there is no evidence that the latent classes themselves change definition over time. This implies that Schwartz is correct when he states that human values are invariant and do not change over time, at least in the short term of the 14 year period examined in this thesis. While individuals may change their view and move classes, there is no evidence of the value items realigning themselves around a new latent class structure.

The effect of human values is not universal, and clear country differences are to be expected dependent on the attitudinal question. The negative effect of the Conservation dimension on predicting the attitudes to immigration is in line with

other human value research. Items from Universalism (which is part of the Self-Transcendence higher dimension) are associated with positive responses this was also in line with previous findings. However, items from Benevolence (also under the Self-Transcendence dimension) did not associate with positive responses as assumed by Schwartz's theory of human value effect relationship (Schwartz, 1994). Also, contrary to the hypothesis that items from self-direction and stimulation are positively correlated with attitudes, these results show that they can have an opposite effect in different countries, and this finding is contradictory to existing research.

This work has identified that there were considerable differences in the effects of the factors that predicted attitudes to immigration between United Kingdom (UK), Germany (DE) and Sweden (SE) majority. Also differences were observed depending on whether respondents were asked if they would allow either "Allow many/few of different race/ethnic group form majority" or "Immigration worst/better for country".

There is a complete lack of studies that have investigated the differences in attitudes to immigration between majority and minority population. This thesis rectifies that lack, and the findings give an indication that differences are expected and can be country specific.

7.7 And finally, are there policy implications that can be drawn from the results of this thesis?

By using sophisticated statistical modelling I showed in this study that human values play a core role in affecting attitudes to immigration, found that there are country specific differences, and majority and minority differences. Such rich information that can be extracted could be valuable in devising long-term strategies as the findings not only identifies country specific information but also enables a more complete understanding of what is the core (human values) are that drives peoples' attitudes, and what individual characteristics are linked with positive or negative responses. Additionally this research includes the immigration sample which has been analysed separately which finally provides a more complete structure of the attitudes and values of the whole society rather than just one segment, (usually the majority). Given that the research questions relate to attitudes to minorities it seems important to me that their view is taken as this also provides a secondary measure of integration, and integration seems to be the aim of most countries. In cases where the minority show similar attitudes to the majority population in their respective residing country perhaps it might indicate of closer opinions to majorities and such can be used as a measurement of integration.

The findings from this thesis highlights the importance of human values in shaping attitudes to a minority group, which is the case of immigration in this study; however, human values can also influence attitudes to other groups based on gender, age, religion, for example, or situations (e.g., climate change).

Governments in Sweden, UK and Germany are strengthening the importance of teaching values as part of the curriculum from early stages of education, particularly values that promote democracy, equal rights, and equal opportunities for everyone irrespective of age, gender, race, ethnicity and sexual identity. In addition, there is a strong emphasis on increasing development of personal competencies such as the ability to cooperate and communicate with others and increasing creativity.

For the adult population, it may be possible to slowly change attitudes to immigrations by promoting certain human values above others in society. Such work suggests that

the population could be nudged to a more positive set of attitudes by setting examples of the positive human value of universalism. This suggestion has echoes of the Nudge Unit in the UK government, now known as the Behavioural Insights Team, and also the work of the Nobel Prize winning behavioural economists (Sunstein and Thaler, 2008).

The approach used in this study can be used to measure whether human values that promote positive attitudes are encouraged in population subgroups and how they change with time or even when a new policy initiative is introduced. In addition, using latent class approach one can measure definition of human values and if they change with time. For example, if the aim is to promote UNIVERSALISM items that give importance to *equal rights* and *equal opportunities*, *understanding others* and *caring for the environment* latent class approach can be used if the definition of these.

This finding here further contributes in identifying the main socio-demographic factors that seem universal and could be used as a source by governments, not only UK, Germany and Sweden to understand the implications of these factors in attitudes towards immigration. While differences between countries are also noted (and this is expected as these countries differ in their political history, immigration history and variations in cultures), however major factors influencing attitudes to immigration as mentioned seem to be universal and can be a source of positive contribution to society if they are systematically encouraged.

7.8 Limitations and future work

In this last section, I would like to focus on the limitations of this work, and the future development of this research.

Firstly, it is unfortunate that the data was limited to the years 2002 -2014. This was unavoidable as no later data had been released at the time of analysis. Immigration in Europe has become a massive issue in recent years, starting from 2015 up to the present day. The Syrian war to the East of Europe together with the collapse of Libya have led to mass immigration to Greece, and through the Balkan countries to Germany and Sweden, and also from the northern coast of Africa to Italy, Malta and Spain. Attitudes to immigration may also be shifting in the countries concerned. The rise of the AfD party (Alternative für Deutschland) anti-immigration party in Germany, particularly in the former East Germany coincided with the open door policy towards refugees in 2015. In the UK, similarly the issue of immigration was an important issue in the European referendum, and was promoted by the Vote Leave campaign. In Sweden, there is also evidence of a rise in support for the Sweden Democrats – the anti-immigration party. The 2016 and 2018 surveys will therefore be of particular interest in examining changes in attitudes, and whether this coincides with a shift in values for the populations of these countries.

Another limitation to this work is the lack of longitudinal data in Chapter 4, I pointed out that it would be preferred to follow the same respondents over time and through the seven sweeps. This longitudinal design would allow changes within an individual to be examined and analysed. This is not possible in the ESS, as the survey design selects a new sample of individuals for each year. Thus changes within an individual cannot be measured. However, cross-country data which follows individuals longitudinally is not available.

In future, work adding more countries such as those with a different immigration history and different regions of Europe together with more years of data would not only enable more comprehensive investigation of social change (in a time of considerable change in Europe) but also identify country specific differences as well as temporal trends.

In addition, more detailed categorisation of different ethnic groups would enable modelling minorities from different ethnic groups separately which would give more insights into the human value-attitudes effects associated with groups of different origins. The selection on the minority sample would therefore benefit by using extra measures of ethnicity apart from “belonging to ethnic minority”. For example, belonging to a minority group is self-defined and does not measure whether the respondent is first or second generation, and there is research evidence that such individuals are sometimes split between two worlds and perhaps two sets of values. Including such factors such as language spoken at home, country of birth and other ethnicity related measures such as religion would increase minority sample size.

Also, including more socio-demographic variables in the analysis such as those measuring group contacts (social engagement and participation) would provide more information on how social interactions further affect the attitudes towards immigrants. Additionally, inclusion of media-related variables measuring engagement of respondents with media (for example, reading newspapers, watching news on TV) is also likely to give further insights in explaining attitudes.

Finally, while Schwartz’s items measuring human values provide information on individual level effects, his approach is primarily psychological. An alternative would be to use Inglehart’s bipolar cultural value dimensions, and this would allow the measurement of cultural and political changes, and social trends within nations which would enable a better understanding of differences between countries. Improvements in the ESS including the Inglehart measures of values would be a considerable advance. Alternatively, increasing the number of Schwartz’s items used in the ESS to allow each human value concept to be measured reliably would also be valuable to researchers in this area.

7.9 References

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Appendix

A

How much is this person like you?

	Very much like me	Like me	Some- what like me	A little like me	Not like me	Not like me at all	
G1 Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6
G2 It is important to him to be rich. He wants to have a lot of money and expensive things.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6
G3 He thinks it is important that every person in the world should be treated equally. He believes everyone should have equal opportunities in life.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6
G4 It's important to him to show his abilities. He wants people to admire what he does.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6
G5 It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6
G6 He likes surprises and is always looking for new things to do. He thinks it is important to do lots of different things in life.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6
G7 He believes that people should do what they are told. He thinks people should follow rules at all times, even when no-one is watching.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6
G8 It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6
G9 It is important to him to be humble and modest. He tries not to draw attention to himself.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6

G10 Having a good time is important to him. He likes to "spoil" himself.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6
G11 It is important to him to make his own decisions about what he does. He likes to be free and not depend on others.	<input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	<input type="checkbox"/>	6

	Very much like me	Like me	Some- what like me	A little like me	Not like me	Not like me at all	
G12 It's very important to him to help the people around him. He wants to care for their well-being.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
G13 Being very successful is important to him. He hopes people will recognise his achievements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
G14 It is important to him that the government ensures his safety against all threats. He wants the state to be strong so it can defend its citizens.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
G15 He looks for adventures and likes to take risks. He wants to have an exciting life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
G16 It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
G17 It is important to him to get respect from others. He wants people to do what he says.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
G18 It is important to him to be loyal to his friends. He wants to devote himself to people close to him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
G19 He strongly believes that people should care for nature. Looking after the environment is important to him.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
G20 Tradition is important to him. He tries to follow the customs handed down by his religion or his family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
G21 He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6

B

Now some questions about people from other countries coming to live in
[ENGLAND/WALES/SCOTLAND: Britain; NORTHERN IRELAND: the UK].

B29 CARD 13 Now, using this card, to what extent do you think [country] should allow people of the
same race or ethnic group as most [country]'s people to come and live here?

Ipsos MORI 10-016053-01

11

Allow many to come and live here	1
Allow some	2
Allow a few	3
Allow none	4
(Don't know)	8

B30 STILL CARD 13 How about people of a different race or ethnic group from most
[ENGLAND/WALES/SCOTLAND: British people; NORTHERN IRELAND: people in the UK]? Still
use this card.

Allow many to come and live here	1
Allow some	2
Allow a few	3
Allow none	4
(Don't know)	8

B31 STILL CARD 13 How about people from the poorer
countries outside Europe? Use the same card.

Allow many to come and live here	1
Allow some	2
Allow a few	3
Allow none	4
(Don't know)	8

B32 CARD 14 Would you say it is generally bad or good for [ENGLAND/WALES/SCOTLAND: Britain; NORTHERN IRELAND: the UK]'s economy that people come to live here from other countries? Please use this card.

Bad for the economy									Good for the economy		(Don't Know)
00	01	02	03	04	05	06	07	08	09	10	88

B33 CARD 15 And, using this card, would you say that [ENGLAND/WALES/SCOTLAND: Britain; NORTHERN IRELAND: the UK]'s cultural life is generally undermined or enriched by people coming to live here from other countries?

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Cultural life undermined									Cultural life enriched		(Don't Know)
00	01	02	03	04	05	06	07	08	09	10	88

B34 CARD 16 Is [ENGLAND/WALES/SCOTLAND: Britain; NORTHERN IRELAND: the UK] made a worse or a better place to live by people coming to live here from other countries? Please use this card.

Worse place to live									Better place to live		(Don't Know)
00	01	02	03	04	05	06	07	08	09	10	88