



Exploring the Geography of Subjective Happiness in Europe During the Years of the Economic Crisis: A Multilevel Modelling Approach

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Abstract

This article builds on the efforts by geographers and regional scientists aimed at adding a geographical dimension to the analysis and understanding of happiness and well-being. In particular, the article explores the changes in observed subjective wellbeing measures of residents in countries and regions that were mostly hit by the severe economic crisis and austerity measures. To that end, we present a multilevel modelling approach to the analysis of suitable secondary data derived from the European Social Survey (ESS), as well as relevant contextual regional-level data from Eurostat. The article first presents a brief overview of the state of the art in happiness and well-being research, with particular emphasis on the relatively limited but rapidly growing geographical studies, as well as studies by economists regarding the impact of austerity and inequality upon happiness and well-being. We then present key findings from a comprehensive analysis of European Social Survey data combined with austerity related data at the regional level in order to explore the geography of happiness and well-being in Europe amid times of economic gloom and severe austerity measures. The research presented in this article involves analysis of data before, during and after (or in towards the end of) the crisis and it is aimed at identifying geographical as well as individual socio-economic and demographic factors that may be affecting happiness and well-being and their possible interactions. The model outputs suggest that living in one of the ‘crisis countries’ has a negative impact on subjective happiness around the time when the short, medium and long term effects of the recession would be mostly felt, when compared to ‘Northern European’ countries (controlling for an extensive number of important covariates selected on the basis of previous work). In addition, the results suggest that the happiness levels in ‘crisis countries’ were higher than the Baltic countries in 2014 and 2016 and higher than the Central and Eastern European countries in 2016. An additional interesting finding is that at the time when the effects of the crisis would be mostly felt, populations born in the country where the ESS took place are on average (after controlling for all other covariates) less happy than those born abroad in one of the years (2014) after the breakout of the crisis.

Keywords Happiness · Well-being · Economic crisis · Inequality

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1 Introduction

It has now been over a decade since the outbreak of the European Debt Crisis and there have been many studies of its causes as well as of the economic, political, social impacts and political implications (Shambaugh, 2012; Lane, 2012; Frieden and Walter, 2017; Ziogas & Panagiotidis, 2021; Katsanidou and Otkes, 2016; Ballas et al., 2017; Perez & Matsaganis, 2018). Amongst the first comprehensive studies is the work of Shambaugh (2012) who presented an analysis of three interlocking crises: a banking crisis pertaining to undercapitalized banks facing liquidity problems, a sovereign debt crisis, relating to the challenges facing a number of countries to fund themselves due to rising government bond yields and a growth crisis, pertaining to slow growth rates, with significant disparities between countries. These disparities are also highlighted in a relevant analysis of the crisis by Lane (2012) with a particular focus on Greece, Ireland and Portugal, as the countries where the fiscal crisis was most severe as well as Germany, France, Italy and Spain, as the four largest euro-zone economies (and two of them, Italy and Spain are also flagged as fiscally vulnerable countries).

The economic impact of the crisis also had significant political and media discourse implications, with the use of expressions such as “northern saints and southern sinners” (Matthijs & McNamara, 2015) and the ‘not very favourable term’ PIIGS (Koba, 2011) for the countries most affected by the crisis (Portugal Italy, Ireland, Greece, Spain) and which (together with Cyprus later) received bailouts from the European funds set up throughout the crisis. These countries also were (to varying degrees, and with the ones applying to Greece being the strictest) linked to conditions relating to the implementation of various austerity measures and structural reforms (Frieden and Walter, 2017; Monastiriotis, 2011; Perez & Matsaganis, 2018). These measures and reforms in many cases amplified existing social and spatial inequalities and have disproportionately and brutally hit the most disadvantaged regions and citizens across Europe (Ballas et al., 2017; Perez & Matsaganis, 2018).

There have also been significant political implications relating to the austerity measures that were implemented. Katsanidou and Otkes (2016) demonstrate how the European Debt Crisis enhanced the Europeanisation of national politics, with a focus on Greece but also arguing that the same processes apply across Europe. This is also illustrated by Frieden and Walter (2017) who provide a comprehensive overview of the political economy of the crisis which includes a discussion of crisis politics in the countries that were ‘bailed-out’ (described as debtor countries) and the creditor states. To that end they highlight the destabilizing effect on the debtor countries’ party system with mainstream parties being punished in elections in Portugal Goulart & Veiga, 2016; Magalhaes, 2012), Ireland (Marsh & Mikhaylov, 2012), Italy (Belluci, 2014), Greece (Dinas & Rori, 2013; Rori, 2016) and Spain (Martin & Urquizu-Sancho, 2012; Medina & Correa, 2016). On the other hand, they present an analysis of crisis politics in creditor countries, in which the ‘northern saints and southern sinners’ narrative was quite prominent.

The emerging economic and political landscape in Europe resulting from the crisis is extremely relevant to the field of the economics of happiness. The impact of recession and associated job losses has long been the focus of the economics of happiness from a theoretical as well as an empirical viewpoint (Di Tella et al., 2001; Di Tella and MacCulloch, 2003; Frey & Stutzer, 2002; Layard, 2005). Of particular relevance here is a study published in this journal presenting an analysis of the impact of the economic crisis on happiness, focusing on Iceland (Gudmundsdottir, 2013). There have also been a number of

studies focusing on the impact of the Great Recession of 2008 upon happiness and well-being (e.g. see Boyce et al., 2018; Deaton, 2012; O’Conor, 2017). The 2013 World Happiness report highlighted the very sharp drop of subjective happiness in the countries most affected by the Eurozone crisis (Helliwell and Wang, 2013). The following World Happiness Report which was published in 2015 included a more detailed analysis and parts of it focused on the impact of the great recession and differences between the years prior to the outbreak of the crisis (2005–2007) and after (2012–14):

The 10 countries with the largest declines in average life evaluations typically suffered some combination of economic, political and social stresses. Three of the countries (Greece, Italy and Spain) were among the four hard-hit Eurozone countries whose post-crisis experience was analyzed in detail in the *World Happiness Report 2013*. The losses were seen to be greater than could be explained directly by macroeconomic factors, even when explicit account was taken of the substantial consequences of higher unemployment. (Helliwell et al., 2015: 33).

It is relevant to note that the term happiness has been typically used in social science studies in relation to a wide range of measures based on explicit questions pertaining to subjective life evaluations (including explicit questions about happiness) and measures of what is often described as subjective well-being, encompassing hedonic (positive and negative), evaluative and eudaimonic aspects (Nikolova and Graham, 2020). Also of relevance is the concept of discontent, which has long been considered in relation to happiness, from a sociological and philosophical perspective (e.g. see a seminal article in this journal in 1988 by Ruut Veenhoven and more recent work focusing on notions of ‘guilt and discontent’; see Oxfevel et al., 2017). More recently, discontent has also been conceptualised and analysed in relation to political voting behaviour in response to ‘places left behind’ (Dijkstra et al., 2019; Koeppen et al., 2021; McCann, 2020; Rodriguez-Pose, 2018).

The study presented in this article considers the impact of the crisis on the happiness of European populations, with a particular focus on differences between the countries that were most affected by the recession. To that end, we adopt a multilevel modelling approach to the analysis of European Social Survey (ESS) data for the years 2008, 2010, 2012, 2014 and 2016 in order to identify the key determinants of subjective well-being as well as possible crisis-related contextual effects. The remainder of the article is structured as follows: Sect. 2 provides some additional framing of the research with a review of relevant literature on the determinants of happiness and well-being, with a particular focus on relevant studies aimed at analyzing the impact of economic crisis as well as more recent work on the geography of happiness and discontent. Section 3 then presents the Data and Methods used. Section 4 presents and discusses the results of the analysis and Sect. 5 offers some concluding comments.

2 What Makes Happy People, Cities, Regions and Countries? The Determinants of Happiness and Well-Being

There is now a long successful history of studies of subjective happiness and well-being and a wide consensus regarding their individual, socio-economic and demographic determinants. Ever since the seminal work of Easterlin (1974) there have been social and economic studies of subjective measures of well-being and happiness and by the late 1990s

there was a clear picture on the individual determinants. As Oswald succinctly put it: “Reported happiness is high among those who are married, on high income, women, whites, the well-educated, the self-employed, the retired and those looking after the home” (Oswald, 1997: 1823). Other variables that are considered to be important determinants of happiness include health status (Dolan et al., 2007), social contacts and inter-personal relationships (Dorling, 2016; Layard et al., 2012), citizens’ trust in institutions (Hudson, 2006) and crime victimisation (Kuroki, 2013). It is also relevant to note here that variables pertaining to trust and more widely social capital are particularly pertinent to times of crisis (Ervasti et al., 2019) and at the same time they affect the ability of societies to successfully and resiliently respond to crises (Helliwell et al., 2014). More recent work also considers the possible role of migration status upon subjective happiness (e.g. see Brockman, 2021; Hendriks, 2018; Hendriks and Bartman, 2019; Hendriks & Burger, 2020). There is also a long successful history of theoretical and evidence-based work aimed at identifying and analysing the determinants of happiness from an economics and wider social science perspective (Frey & Stutzer, 2002; Layard, 2005) and extensive reviews of relevant literature (Dolan et al., 2007; Powdthavee, 2007; Clark, 2018; Nikolova and Graham, 2020). In addition and of particular relevance to the research presented in this article is the more recent work on the analysis of discontent expressed through voting behaviour in areas in which their inhabitants may feel that their ‘place does not matter’ (McCann, 2020; Rodriguez-Pose, 2018).

The most recent comprehensive review of happiness economics is presented in an article entitled ‘Four Decades of the Economics of Happiness: where next?’ (Clark, 2018) and presents the state of the art as well as a relevant research agenda. This article also includes a discussion of empirical work that takes into account the importance of spatial context (with a starting point a reference to Richard Easterlin’s study that highlighted the importance of a country’s Gross Domestic Product for the happiness of its population). There have also been extensive efforts by urban, social and economic geographers to highlight the need for a geographical approach to the analysis of happiness (e.g. see Ala-Mantila et al., 2018; Ballas, 2021; Morrison, 2020; Rijnks, 2020) building on previous relevant work on the analysis of quality of life in cities and regions (including a comprehensive survey published in this journal, see Lambiri et al., 2007) and of objective and subjective measures of subjective well-being (Ballas, 2013; Stimson & Marans, 2011). Of particular relevance to the work presented in this article is the role of social and spatial inequalities, given also the evidence produced by social epidemiology research in relation to the impact of inequality upon well-being (Wilkinson & Pickett, 2010, 2018; Marmot, 2017). Therefore, high levels of inequality and poverty at regional and country level can be seen as adverse ‘social weather’ with detrimental impacts on happiness, in the same way that poor quality of physical environment and weather may have such an impact (Ballas, 2021).

In this context the impact of recessions and economic crises can be seen as a metaphor for social weather affecting populations both in terms of the overall social climate (with an ecological impact on the overall social well-being and psychological state of the populations living in these areas regardless of their individual circumstances and characteristics) as well as direct impacts at the individual level (e.g. increased chances of becoming unemployed, wage cuts etc.). The role of macro-economic factors and in particular the detrimental impact of recessions has long been considered and acknowledged by happiness economists (Frey & Stutzer, 2002) and in recent years there was a particular focus on the impact of the 2008 Great Recession on subjective well-being measures. One of the first such studies was published by Gudmundsdottir (2013) in this journal and focused on the impact of the crisis on Iceland, focusing on changes in happiness between 2007 and

2009. She applied a multiple linear regression model to longitudinal national representative postal survey data and she concluded that the economic crisis in these years had a limited effect on happiness with those already experiencing financial difficulties before the onset of the crisis hit the hardest. Nevertheless and as also noted in the introduction, the World Happiness Reports of 2013 and 2015 highlighted significant declines subjective well-being measures in countries that were affected by the crisis. More recently, O’Conor (2017) presented an analysis of the impact of the Great Recession of 2008 upon happiness in the United States, highlighting the detrimental effect of declining income and rising unemployment. Bonasia et al. (2018) in an article entitled *Happy PIIGS?* use data from the International Monetary Fund World Economic Outlook Database in combination with Ruut Veenhoven’s World Database of Happiness data (2013) in order to examine the causality dynamics between happiness and focusing on differences between Portugal, Ireland, Italy, Greece and Spain (which, as also noted in the introduction, have been unfavourably labelled as PIIGS) and five other European countries (which are included in the group of countries typically described as creditors in many of the studies of the European economic crisis): Belgium, Denmark, France, Germany and the Netherlands (which they group together and label as non-PIIGS countries). They point out that national income has a significant and positive impact on happiness for all countries, but they note that this is smaller for what they describe as non-PIIGS countries. They also highlight the impact of economic uncertainty upon happiness.

Also of relevance here is a study by Chadi (2015) examining the possible link between concerns about the Euro currency (the design of which has been the focus of negative media attention in relation to the crisis). His study (which focuses on Germany) concludes that there is a minority of individuals who say that they are very concerned about the Euro currency and who appear to be significantly more unhappy compared to those not concerned (and this difference cannot be explained by other factors typically affecting well-being).

In addition, it is relevant to note recent work by Pilipiec et al (2020) published in this journal focusing on the impact of the recession on job satisfaction in the Netherlands, suggesting higher levels of satisfaction during the recession years, but suggesting that this is may be mostly due to the composition of the workers with respect to job level. It is also relevant to note studies that highlighted the impact of the crisis upon social capital and well-being in times of crisis (Helliwell et al., 2014; Sarracino and Piekalkiewicz, 2021).

In recent years there has also been a rapidly growing body of literature on a theme described as the geography of discontent, expressed through voting behaviour for extremist, populist and self-proclaimed anti-establishment parties (Dijkstra et al., 2019; Koeppen et al., 2021; McCann, 2020; Rodriguez-Pose, 2018). Although subjective happiness and well-being is not typically included in such studies, there is an underlying assumption that voting can be seen as a proxy for discontent, which we could argue is a component of happiness (or unhappiness!). Of particular relevance is the term ‘places that don’t matter’ coined by Rodriguez-Pose (2018) to characterize declining areas with persistent poverty, economic decay and lack of opportunities. A key argument underpinning the ‘places that don’t matter’ idea is the notion of contextual effects for local populations (regardless of their income and other circumstances) who feel that their *place does not matter* and wish to take revenge through the ballot box:

It has been thus the places that don’t matter, not the “people that don’t matter”, that have reacted. In these areas it has been very often the relatively well-off, those in well-paid jobs or with pensions that heeded the call of populism.

(Rodríguez-Pose, 2018: 201).

The types of regions that can be described as ‘places that don’t matter’ are particularly affected at times of crisis, as social and spatial inequalities become starker (Ballas et al., 2017). In addition, the notion and collective sense that a place (and in the case of this article, also countries) ‘does not matter’ is amplified not only by the real economic circumstances on the ground but also by relevant political and media discourse such as the use of term such as *PIIGS* and *Northern Saints and Southern Sinners* as reviewed above. It would also be reasonable to assume that the detrimental impact upon subjective well-being and happiness as a result of living in a country or region that is negatively connoted (through media and political discourses as well as policy) would be stronger for inhabitants who have a stronger sense of place and place attachment.

In this article we aim to build on previous research on the analysis of subjective happiness by considering the impact of both individual as well as geographical contextual factors, with a particular focus on comparisons between countries mostly affected by the crisis (and by negative media and political discourses that might have enhanced individual and collective feelings that their ‘place’ does not matter).

3 Data and Method

We used data from the European Social Survey (ESS) which is an academically driven cross-national survey, conducted biennially across Europe since 2001 with the use of face-to-face interviews conducted with newly selected cross-sectional samples (European Social Survey, 2021). The survey includes a wide range of demographic and socio-economic data as well as social and human values. The ESS has been used extensively for the analysis of happiness and well-being (for a recent example and overview see ESS, 2015). To the best of our knowledge, the ESS was used for the first time for regional level analysis of subjective well-being in a study by Aslam and Corrado (2012) who applied a multilevel model to account for the different levels of spatial aggregation in the data set. It is worth noting that most of the previous quantitative analysis studies of happiness and well-being were based on the use of individual-level social survey microdata to make inferences about an individual level relationship between happiness and a wide range of socio-economic and demographic characteristics, or single level studies comparing aggregate happiness levels between countries. The notable exceptions include the work of Aslam and Corrado mentioned above (using ESS data) as well as work of Pittau et al. (2010) published in this journal, using Eurobarometer data to examine regional variations of well-being across European regions and Ballas and Tranmer (2012) who applied multilevel models on British Household panel survey data (with spatial disaggregation at regional and local authority districts). Since then there has been an increasing recognition of the suitability of the method for the analysis of compositional and contextual determinants of happiness (Ballas, 2021), accounting for the interdependence of observations at different levels by partitioning the total variance into different components of variation due to various levels in the data (Ballas & Tranmer, 2012; Goldstein, 2003; Hox, 1995; Snijders & Bosker, 1999).

In the study presented in this article we follow a similar approach to Aslam and Corrado (2012). In particular we specify and apply a multilevel model on ESS data for years of the crisis in which relevant waves were available (2010, 2012, 2014 and 2016) as well as the beginning of the crisis (2008) when the effects were not yet felt, with two levels (individual and region) and treating countries and groups of countries as fixed effects (with countries

or groupings of the countries affected the most from the crisis as a reference category). Following the discussion and the literature reviewed in the previous section, we used a subjective happiness measure as our dependent variable, which is measured on a 0–10 scale on the basis of the question: How happy are you? Following Aslam and Corrado (2012) we used a z-transformed centred version of this variable. As it was the case with that study and also many other studies of similar measures of subjective well-being, happiness and health (e.g. see Propper et al., 2005; Ballas & Tranmer, 2012; Oswald and Wu, 2010) we are treating happiness dependent variable as a continuous variable.¹ In addition, in line with previous happiness studies (as reviewed briefly in the previous section), we included relevant individual level demographic and socio-economic explanatory and control variables and in particular, age (age and age squared, centred to regional averages) and dummy variables in relation to gender, employment status, income category, trust in institutions and health status but also information on whether a respondent has been a victim of crime. We also included a dummy variable relating to subjective financial conditions (the extent to which respondents feel they are coping financially on their present income) as well as place of birth as a proxy to migrant status. The selection of all these explanatory variables was informed by the literature and the evidence reviewed in the previous section. Some of these variables (and especially income and employment status) are explicitly relevant to the theme of this article as they are directly affected by austerity policies, which included higher taxes, lower benefits, public wage cuts or freezes, public sector job losses (Perez & Matsaganis, 2018). The place of birth variable was included both on the basis of relevant recent literature (as a proxy to migrant status) as well as in relation to the possible role of sense of place and place attachment and possible links to collective sense of ‘left-behind’ in relation to happiness and the geographies of discontent reviewed in the previous section.

In addition to the individual level variables we considered (and added using the EUROSTAT database²) several regional level covariates that pertain to socio-economic conditions (and affected by austerity policies) and we included the EU regional human development index as well as the regional Gross Domestic Product (GDP) and annual GDP growth rate. We also included a dummy variable in relation to the use of the Euro currency (which also relates to the discussion of relevant literature in the previous section).

Following the discussion of relevant literature in the previous section, we then also added country level context on inequality using the data presented by Ramos and Royuela (2014) with estimates of Gini coefficients at NUTS1 or country level (categorising respondents who live in NUTS1 regions or countries with relatively high and low inequality defined as a Gini coefficient above and below 0.3)³. In addition, regional Human Development Index (HDI) values were calculated and added to our database using relevant data from EUROSTAT and the methodology presented by Hardeman and Dijkstra (2014). Finally, we included country fixed effects by considering the countries in crisis in relation to different regional groups across Europe. Table S1 in Electronic Supplementary Material (ESM) presents summary statistics for all the variables that we included in our analysis and for all years whereas Table 2 in the ESM lists all countries that were included in the analysis in each year and also illustrates the sample size by country and region as well as the number of regions.

¹ It is worth noting that as also pointed out by Ballas and Tranmer (2012) and also argued by Clark and Oswald (2002) the results of ordered probits and OLS regression happiness models are qualitatively similar (also see Frey and Stutzer, 2002).

² <https://ec.europa.eu/eurostat/data/database>.

³ Missing values were imputed using the statistical programme Amelia developed and made available by Honaker et al. (2011).

In line with previous multilevel studies of happiness (Aslam & Corrado, 2012; Ballas & Tranmer, 2012), the first step in our analysis involved the estimation of the proportion of the overall variation in happiness and well-being that is attributable to regions, known as the intra-class correlation. We then introduced the explanatory variables at individual and regional level (and also including inequality and euro currency membership at country level) discussed above (also see Table S1 in the ESM), selected on the basis of theoretical considerations and the previous research on happiness which we briefly reviewed in Sect. 2. Following Aslam and Corrado (2012: p. 640) we adopted a restricted maximum likelihood (REML) approach which produces unbiased estimates in the case of small samples (Goldstein, 2003) while “also having the advantage of taking into account in the estimate of the random intercept variance the loss of degrees of freedom resulting from the estimation of fixed effects in the model”. We specified random intercept models, assuming that the relationship between happiness and our explanatory variables is the same in all regions and all survey respondents, but that there is a different intercept for each level.

4 Model Results

Before we discuss the results of the multilevel modelling analysis, it is interesting to consider the regions that had the highest and lowest levels of average happiness across Europe in the years that we cover. Table S3 (see ESM) shows the top 5 and bottom 5 regions.

As can be seen, in the first year of our analysis in 2008, before the onset of the crisis, the region with the highest average happiness score is the Slovenian region of *Zavaska* followed by two regions in Denmark, one in the Netherlands and one in Norway. The lowest value is observed in the Bulgarian region of *Vidin* and all the other regions in the bottom five table are also in Bulgaria. In 2010, the region with the highest average happiness score is *Kainuu* in northeast Finland (and the top five list comprises regions in Denmark, Switzerland and Sweden), whereas the lowest value is observed in *Vidin* a region in northwest Bulgaria (and all bottom five regions in that year are in Bulgaria). In 2012 the region with the highest value was the Spanish city region of *Ceuta* (on the north coast of Africa; but with an extremely small sample size) followed by regions in Finland, the Netherlands, Norway and Switzerland. The region with the lowest observed score was *Targovishte* in northern Bulgaria with another three Bulgarian regions in the bottom five together with the northern Hungarian region of *Borsod-Abaúj-Zemplén*. In 2014 the top spot was taken by *Blekinge län* in the south of Sweden followed by another two Swedish regions, one Finnish region and one region from Belgium. The bottom five regions that year are all in Hungary (with *Pest*, the city region of Budapest taking the spot with the lowest score). And in the last year of our analysis, the top spot is taken by the German region of *Saarland* on the Luxembourg and French border with regions from Finland, Norway, Belgium and Austria making up the rest of the top five list. On the other hand, the bottom place is taken by the northern Lithuanian region *Panevezio apskritis* and the bottom five table comprises also regions from Hungary and Italy. It is interesting to note that there are no regions from the PIIGS countries in the bottom list in any of the years.

We now turn our attention to the results of the multilevel modelling. Tables 1, 2, 3, 4, 5 give the results of our multilevel models of estimated fixed effects of demographic, socio-economic and health related covariates at the individual level as well as regional and country level co-variates and country fixed effects. It is interesting to note that the null model intra-class correlation in 2008 was 22.8% dropping to 7.3% when introducing individual

Table 1 Multi-level model of subjective happiness (ESS variable: Happy) z-transformed, centred; European Social Survey wave 4 (2008) * = $p < 0.1$; ** = $p < 0.05$; *** = $p < 0.01$

Variables/coefficients	1	2
Age (centred)	-0.0027*** (0.0004)	-0.0027*** (0.0004)
Age squared	0.0002*** (0.0000)	0.0002*** (0.0000)
Female (ref: Male)	0.0583*** (0.0101)	0.0585*** (0.0101)
Secondary education attainment (ref: primary)	0.0342*** (0.0167)	0.0403** (0.0169)
Tertiary education attainment (ref: primary)	0.0524*** (0.0185)	0.0575*** (0.0186)
Income missing (ref: low income)	0.0698*** (0.0191)	0.0719*** (0.0192)
Medium income (ref: low income)	0.0219 (0.0166)	0.0216 (0.0166)
High income (ref: low income)	0.1024*** (0.0180)	0.1026*** (0.0180)
Living comfortably or coping on present income (ref: finding it difficult or very difficult)	0.3821*** (0.0137)	0.3817*** (0.0137)
Cohabiting with husband/wife/partner (ref: not cohabiting)	0.0790** (0.0373)	0.0775** (0.0373)
Meeting socially several times a week or every day with friends, relatives or work colleagues (reference: once a month or less)	0.1920*** (0.0109)	0.1916*** (0.0109)
Health very good or good (reference: fair, bad and very bad)	0.3315*** (0.0118)	0.3314*** (0.0118)
Born in the country (reference: not born in the country)	0.0109	0.0109

Table 1 (continued)

Variables/coefficients	1	2
Victim of a burglary or assault in the past five years	(0.0195) -0.0538*** (0.0136)	(0.0195) -0.0542*** (0.0136)
Unemployed	-0.2176*** (0.0279)	-0.2180*** (0.0279)
Trust in country's parliament (reference: 0-7)	0.0605*** (0.0186)	0.0598*** (0.0186)
Trust in the legal system (reference: 0-7)	0.0177 (0.0159)	0.0167 (0.0159)
Trust in the police (reference: 0-7)	0.1557*** (0.0135)	0.1554*** (0.0135)
Trust in politicians (reference: 0-7)	0.0537 (0.0334)	0.0545 (0.0334)
Trust in political parties (reference: 0-7)	0.0328 (0.0340)	0.0325 (0.0340)
Trust in the European Parliament (reference: 0-7)	0.0889*** (0.0193)	0.0903*** (0.0193)
Trust in the United Nations (reference: 0-7)	0.0750*** (0.0154)	0.0741*** (0.0154)
Most people can be trusted or you can't be too careful (reference: 0-7)	0.1602*** (0.0143)	0.1590*** (0.0143)
<i>Regional level variables</i>		
Regional GDP (log)	0.3044*** (0.0600)	0.2703*** (0.0616)
GDP growth 2007-08	-0.0074**	-0.0066**

Table 1 (continued)

Variables/coefficients	1	2
In a country that has the Euro currency	(0.0029)	(0.0030)
	-0.0228	-0.0177
	(0.0367)	(0.0480)
Country or Region (NUTS1) Gini below 0.3	0.0898**	0.1114***
	(0.0350)	(0.0408)
Regional Human Development Index	0.1531	0.1176
	(0.2054)	(0.2536)
<i>EuroVoc region fixed effects (ref: crisis countries—Portugal, Ireland, Greece, Spain and Cyprus)</i>		
Central and East		-0.0916
		(0.0794)
Baltic		0.0414
		(0.0964)
Nothern		0.0373
		(0.0875)
Western		-0.0397
		(0.0572)
Level 2 N	260	260
N	25,137	25,137

Standard Errors are noted in parentheses

Table 2 Multi-level model of subjective happiness (ESS variable: Happy) z-transformed, centred; European Social Survey wave 5 (2010) * = $p < 0.1$; ** = $p < 0.05$; *** = $p < 0.01$

Variables/coefficients	1	2
Age (centred)	-0.0028*** (0.0003)	-0.0028*** (0.0003)
Age squared	0.0003*** (0.0000)	0.0003*** (0.0000)
Female (ref: Male)	0.0871*** (0.0086)	0.0871*** (0.0086)
Secondary education attainment (ref: primary)	0.0257** (0.0115)	0.0259** (0.0115)
Tertiary education attainment (ref: primary)	0.0372*** (0.0124)	0.0373*** (0.0124)
Income missing (ref: low income)	0.0978*** (0.0136)	0.0975*** (0.0137)
Medium income (ref: low income)	0.0877*** (0.0123)	0.0877*** (0.0123)
High income (ref: low income)	0.1477*** (0.0139)	0.1477*** (0.0139)
Living comfortably or coping on present income (ref: finding it difficult or very difficult)	0.3535*** (0.0112)	0.3536*** (0.0112)
Cohabiting with husband/wife/partner (ref: not cohabiting)	0.3196*** (0.0100)	0.3197*** (0.0100)
Meeting socially several times a week or every day with friends, relatives or work colleagues (reference: once a month or less)	0.2061***	0.2065***
Health very good or good (reference: fair, bad and very bad)	0.0094	0.0094
Born in the country (reference: not born in the country)	0.3810*** (0.0102)	0.3811*** (0.0102)
	-0.0244	-0.0243

Table 2 (continued)

Variables/coefficients	1	2
Victim of a burglary or assault in the past five years	(0.0163) -0.0731*** (0.0118)	(0.0163) -0.0730*** (0.0118)
Unemployed	-0.1999*** (0.0192)	-0.1999*** (0.0192)
Trust in country's parliament (reference: 0-7)	0.0455*** (0.0173)	0.0457*** (0.0173)
Trust in the legal system (reference: 0-7)	0.0458*** (0.0138)	0.0460*** (0.0138)
Trust in the police (reference: 0-7)	0.1746*** (0.0114)	0.1747*** (0.0114)
Trust in politicians (reference: 0-7)	0.0273 (0.0294)	0.0273 (0.0294)
Trust in political parties (reference: 0-7)	0.0438 (0.0301)	0.0438 (0.0301)
Trust in the European Parliament (reference: 0-7)	0.0641*** (0.0180)	0.0641*** (0.0180)
Trust in the United Nations (reference: 0-7)	0.0741*** (0.0139)	0.0741*** (0.0139)
Most people can be trusted or you can't be too careful (reference: 0-7)	0.2160*** (0.0122)	0.2160*** (0.0123)
<i>Regional level variables</i>		
Regional GDP (log)	0.1328*** (0.0492)	0.1307** (0.0525)
GDP growth 2009-10	0.0090***	0.0093***

Table 2 (continued)

Variables/coefficients	1	2
In a country that has the Euro currency	(0.0025)	(0.0029)
	0.0308	0.0264
Country or Region (NUTS1) Gini below 0.3	(0.0278)	(0.0350)
	0.0761***	0.0896**
Regional Human Development Index	(0.0260)	(0.0352)
	0.6399***	0.7127***
	(0.1595)	(0.1928)
<i>EuroVoc region fixed effects (ref: crisis countries—Portugal, Ireland, Greece, Spain and Cyprus)</i>		
Central and East		−0.0181
		(0.0657)
Baltic		0.0128
		(0.0840)
Northern		−0.0467
		(0.0737)
Western		−0.0403
		(0.0514)
Level 2 N	296	296
N	37,732	37,732

Standard Errors are noted in parentheses

Table 3 Multi-level model of subjective happiness (ESS variable: Happy) z-transformed, centred; European Social Survey wave 6 (2012) * = $p < 0.1$; ** = $p < 0.05$; *** = $p < 0.01$

Variables/coefficients	1	2
Age (centred)	-0.0020*** (0.0003)	-0.0020*** (0.0003)
Age squared	0.0002*** (0.0000)	0.0002*** (0.0000)
Female (ref: Male)	0.0808*** (0.0085)	0.0808*** (0.0085)
Secondary education attainment (ref: primary)	0.0167 (0.0116)	0.0178 (0.0116)
Tertiary education attainment (ref: primary)	0.0178 (0.0122)	0.0185 (0.0122)
Income missing (ref: low income)	0.0402*** (0.0138)	0.0417*** (0.0138)
Medium income (ref: low income)	0.0421*** (0.0121)	0.0427*** (0.0121)
High income (ref: low income)	0.0821*** (0.0136)	0.0832*** (0.0136)
Living comfortably or coping on present income (ref: finding it difficult or very difficult)	0.4283*** (0.0111)	0.4277*** (0.0111)
Cohabiting with husband/wife/partner (ref: not cohabiting)	0.3262*** (0.0099)	0.3257*** (0.0099)
Meeting socially several times a week or every day with friends, relatives or work colleagues (reference: once a month or less)	0.1836***	0.1826***
Health very good or good (reference: fair, bad and very bad)	0.0093	0.0093
Born in the country (reference: not born in the country)	0.3536*** (0.0101)	0.3533*** (0.0101)
	-0.0033	-0.0036

Table 3 (continued)

Variables/coefficients	1	2
Victim of a burglary or assault in the past five years	(0.0160) -0.0483*** (0.0112)	(0.0160) -0.0482*** (0.0112)
Unemployed	-0.1653*** (0.0187)	-0.1659*** (0.0187)
Trust in country's parliament (reference: 0-7)	0.0189 (0.0163)	0.0182 (0.0163)
Trust in the legal system (reference: 0-7)	0.0510*** (0.0132)	0.0500*** (0.0132)
Trust in the police (reference: 0-7)	0.1475*** (0.0109)	0.1465*** (0.0109)
Trust in politicians (reference: 0-7)	0.0439 (0.0271)	0.0448* (0.0271)
Trust in political parties (reference: 0-7)	0.0627** (0.0273)	0.0627** (0.0273)
Trust in the European Parliament (reference: 0-7)	0.0729*** (0.0175)	0.0745*** (0.0175)
Trust in the United Nations (reference: 0-7)	0.1005*** (0.0129)	0.0998*** (0.0129)
Most people can be trusted or you can't be too careful (reference: 0-7)	0.1804*** (0.0120)	0.1797*** (0.0120)
Regional GDP (log)	0.2121*** (0.0513)	0.1958*** (0.0563)
GDP growth 2011-12	-0.0000 (0.0035)	0.0004 (0.0036)

Table 3 (continued)

Variables/coefficients	1	2
In a country that has the Euro currency	0.0967*** (0.0280)	0.0947*** (0.0343)
Country or Region (NUTS1) Gini below 0.3	0.0442 (0.0269)	0.0329 (0.0359)
Regional Human Development Index	0.4710*** (0.1572)	0.2808 (0.1933)
<i>EuroVoc region fixed effects (ref: crisis countries—Portugal, Ireland, Italy, Spain and Cyprus)</i>		
Central and East		-0.0619 (0.0613)
Baltic		-0.0579 (0.0744)
Northern		0.0736 (0.0719)
Western		0.0142 (0.0505)
Level 2 N	297	297
N	37,374	37,374

Standard Errors are noted in parentheses

Table 4 Multi-level model of subjective happiness (ESS variable: Happy) z-transformed, centred; European Social Survey wave 7 (2014) * = $p < 0.1$; ** = $p < 0.05$; *** = $p < 0.01$

Variables/coefficients	1	2
Age (centred)	-0.0013*** (0.0003)	-0.0013*** (0.0003)
Age squared	0.0003*** (0.0000)	0.0003*** (0.0000)
Female (ref: Male)	0.0677*** (0.0099)	0.0685*** (0.0099)
Secondary education attainment (ref: primary)	0.0127 (0.0136)	0.0138 (0.0136)
Tertiary education attainment (ref: primary)	0.0424*** (0.0141)	0.0438*** (0.0141)
Income missing (ref: low income)	0.0141 (0.0170)	0.0145 (0.0170)
Medium income (ref: low income)	0.0591*** (0.0139)	0.0580*** (0.0139)
High income (ref: low income)	0.0969*** (0.0153)	0.0962*** (0.0154)
Living comfortably or coping on present income (ref: finding it difficult or very difficult)	0.4077*** (0.0140)	0.4079*** (0.0140)
Cohabiting with husband/wife/partner (ref: not cohabiting)	0.3168*** (0.0116)	0.3170*** (0.0116)
Meeting socially several times a week or every day with friends, relatives or work colleagues (reference: once a month or less)	0.1987***	0.1970***
Health very good or good (reference: fair, bad and very bad)	0.0107 (0.4109***)	0.0107 (0.4104***)
Born in the country (reference: not born in the country)	0.0117 (-0.0308*)	0.0117 (-0.0298*)

Table 4 (continued)

Variables/coefficients	1	2
Victim of a burglary or assault in the past five years	(0.0181) -0.0540*** (0.0130)	(0.0180) -0.0555*** (0.0130)
Unemployed	-0.2060*** (0.0245)	-0.2076*** (0.0245)
Trust in country's parliament (reference: 0-7)	0.0736*** (0.0172)	0.0711*** (0.0172)
Trust in the legal system (reference: 0-7)	0.0642*** (0.0144)	0.0633*** (0.0144)
Trust in the police (reference: 0-7)	0.1468*** (0.0121)	0.1453*** (0.0121)
Trust in politicians (reference: 0-7)	0.0783*** (0.0286)	0.0787*** (0.0286)
Trust in political parties (reference: 0-7)	0.0141 (0.0288)	0.0134 (0.0288)
Trust in the European Parliament (reference: 0-7)	0.0555*** (0.0201)	0.0598*** (0.0201)
Trust in the United Nations (reference: 0-7)	0.0784*** (0.0148)	0.0773*** (0.0148)
Most people can be trusted or you can't be too careful (reference: 0-7)	0.1867*** (0.0138)	0.1861*** (0.0138)
Regional GDP (log)	0.0418** (0.0203)	0.0234 (0.0198)
GDP growth 2013-14	-0.0004** (0.0002)	0.0000 (0.0002)

Table 4 (continued)

Variables/coefficients	1	2
In a country that has the Euro currency	0.0669** (0.0260)	0.0238 (0.0287)
Country or Region (NUTS1) Gini below 0.3	0.0386 (0.0250)	-0.0190 (0.0301)
Regional Human Development Index	0.0008** (0.0003)	-0.0001 (0.0004)
<i>EuroVoc region fixed effects (ref: crisis countries—Portugal, Ireland and Spain)</i>		
Central and East		-0.0771 (0.0526)
Baltic		-0.3790*** (0.0684)
Northern		0.1416** (0.0627)
Western		0.0584 (0.0451)
Level 2 N	244	244
N	30,636	30,636

Standard Errors are noted in parentheses

Table 5 Multi-level model of subjective happiness (ESS variable: Happy) z-transformed, centred; European Social Survey wave 8 (2016) * = $p < 0.1$; ** = $p < 0.05$; *** = $p < 0.01$

Variables/coefficients	1	2
Age (centred)	-0.0015*** (0.0003)	-0.0015*** (0.0003)
Age squared	0.0002*** (0.0000)	0.0002*** (0.0000)
Female (ref: Male)	0.0866*** (0.0095)	0.0870*** (0.0095)
Secondary education attainment (ref: primary)	-0.0013 (0.0132)	0.0002 (0.0132)
Tertiary education attainment (ref: primary)	0.0226 (0.0139)	0.0238* (0.0140)
Income missing (ref: low income)	0.0399*** (0.0163)	0.0405** (0.0164)
Medium income (ref: low income)	0.0598*** (0.0136)	0.0601*** (0.0136)
High income (ref: low income)	0.1043*** (0.0152)	0.1054*** (0.0152)
Living comfortably or coping on present income (ref: finding it difficult or very difficult)	0.3968*** (0.0140)	0.3965*** (0.0140)
Cohabiting with husband/wife/partner (ref: not cohabiting)	0.3273*** (0.0111)	0.3269*** (0.0111)
Meeting socially several times a week or every day with friends, relatives or work colleagues (reference: once a month or less)	0.2185*** (0.0104)	0.2166*** (0.0104)
Health very good or good (reference: fair, bad and very bad)	0.3889*** (0.0113)	0.3883*** (0.0113)
Born in the country (reference: not born in the country)	-0.0388***	-0.0386**

Table 5 (continued)

Variables/coefficients	1	2
Victim of a burglary or assault in the past five years	(0.0170) -0.0651*** (0.0132)	(0.0170) -0.0667*** (0.0132)
Unemployed	-0.1560*** (0.0248)	-0.1578*** (0.0249)
Trust in country's parliament (reference: 0-7)	0.0623*** (0.0169)	0.0610*** (0.0169)
Trust in the legal system (reference: 0-7)	0.0746*** (0.0138)	0.0745*** (0.0138)
Trust in the police (reference: 0-7)	0.1861*** (0.0113)	0.1853*** (0.0114)
Trust in politicians (reference: 0-7)	0.0307 (0.0278)	0.0322 (0.0278)
Trust in political parties (reference: 0-7)	0.0385 (0.0287)	0.0384 (0.0287)
Trust in the European Parliament (reference: 0-7)	0.0387*** (0.0192)	0.0408** (0.0192)
Trust in the United Nations (reference: 0-7)	0.0776*** (0.0145)	0.0762*** (0.0145)
Most people can be trusted or you can't be too careful (reference: 0-7)	0.1766*** (0.0131)	0.1760*** (0.0132)
Regional GDP (log)	0.1563*** (0.0508)	0.0775 (0.0577)
GDP growth 2015-16	-0.0009 (0.0048)	-0.0012 (0.0050)

Table 5 (continued)

Variables/coefficients	1	2
In a country that has the Euro currency	0.0360 (0.0278)	0.0119 (0.0390)
Country or Region (NUTS1) Gini below 0.3	0.0234 (0.0287)	0.0667* (0.0358)
Regional Human Development Index	0.0885 (0.1876)	0.0886 (0.2070)
<i>EuroVoc region fixed effects (ref: crisis countries-Portugal, Ireland, Italy and Spain)</i>		
Central and East		-0.1357** (0.0620)
Baltic		-0.1794*** (0.0528)
Nothern		-0.0259 (0.0621)
Western		-0.0317 (0.0417)
Level 2 N	263	263
N	33,479	33,479

Standard Errors are noted in parentheses

and contextual covariates and to 7.1% after country and EuroVoc regional grouping fixed effects. In 2010 it was 17.3% dropping to 5.1% when introducing individual and contextual covariates and 5.2% after country and EuroVoc regional grouping fixed effects. The respective figures for 2012 were 20.2%, 5.9% and 5.9%, for 2014 9.1%, 3.4% and, 2.6% and in 2016, 8.7%, 4.1% and 3.8%.

The first column in each table presents the results of a model that includes all individual and contextual (regional and country level) covariates but no fixed effects for countries or country groupings. As can be seen in all years the following variables have significant positive main effects on happiness: individual income, subjective financial circumstances (those who feel living comfortably or coping on present income compared to those who do not), health status, education attainment, gender (females are on average slightly happier than males), frequency of social contact (those with several times a week or daily contact with friends, relatives or work colleagues), cohabiting status (respondents living with husband, wife, partner report higher happiness scores than those who do not). These effects are widely consistent with theoretical considerations and previous research studies such as those reviewed in Sect. 2. On the other hand, the following variables had significant negative main effects: being unemployed, having been a victim of burglary or assault in the previous five years. Again, all this is consistent with previous research on the correlates of happiness.

The variables discussed above all widely have the expected (according to theory and previous literature) impact on subjective happiness and they are typically included in most models of happiness as controls (also see discussion in Sect. 2). We now turn to variables that are relatively less researched and/or of particular relevance to the theme of this article. We first considered variables pertaining to social capital and trust, which, as seen in the review of literature presented in Sect. 2, have been increasingly considered as important determinants of happiness and are particularly pertinent in periods of crises. In our models we included seven variables pertaining to trust in institutions and one variable pertaining to trust in other people. In 2008 the variables capturing trust in the country's parliament, the police, the European Parliament and the United Nations are positively and statistically significantly associated in all years with happiness as is the variable capturing the trust in other people. The relationship between these variables and happiness remains significant in the forthcoming years (except for trust in the national parliament which is insignificant in 2012) and it is also interesting to note that trust in legal system also becomes significant in 2010 (and in all forthcoming years). In addition, trust in politicians has a statistically significant relationship with happiness in 2014 and 2016 and trust in political parties is significant in 2012.

It is also noteworthy that according to our analysis, there is a statistically significant negative relationship between being born in the country where the survey took place and happiness at the height of the crisis, in 2014 (but not in any of the other years in the analysis). If we consider the country of birth as a proxy for immigration status it could be argued that the coefficient in our models is consistent with work suggesting that immigrants tend to experience higher levels of perceived happiness as a result (Hendriks, 2018). It may also be of relevance to note that after the outbreak of the economic crisis there has been a collective feeling of gloom and pessimism across Europe, especially for younger people (Dudel et al., 2016; Holleran, 2019) and in this context those born in the country may be more likely (compared to those born abroad) to consider their (and the country and regional) circumstances in relation to remembered or perceived better times in the past. It can also be argued that the lower reported happiness of those born in the country is consistent with tendencies for out-migration and brain drain, especially in the regions that were

most negatively affected by the crisis (Cavallini et al., 2018). It is also relevant to note that the massive instability experienced in European labour markets (and especially in the European periphery) and the proliferation of what were described as “junk jobs”, diverse forms of concealed underemployment and the low salaries (also contrasting to the sharp increase in the cost of housing in the 2000s) in countries like Spain (Antentas, 2015) may have been particularly detrimental to ‘natives’ who remembered better times (or for the younger, there may have been a comparison to actual or perceived times in relation to previous generations).

It is also relevant to note here that the years right after the beginning of the crisis there have also been manifestations of unrest and social movements, especially in the European south (Leontidou, 2012; Antentas, 2015; Kyriakidou and Olivás Osuna, 2017) which was predominantly an expression of discontent of local populations. It may be reasonable to assume that such considerations would probably be more relevant to populations who have lived in the country all their lives. Also of relevance here is the recent work on the geographies of discontent and the ‘revenge of the places that don’t matter’ which was briefly reviewed in Sect. 2. In particular, in addition to the possible inter-generational social justice and inequality considerations discussed above, there is may also be a geographical consideration in the form of place-attachment, associated with place-based discontent. The economic crisis has impacts both at individual (e.g. decline in personal income, job losses) and area level (decline of investment in the region or country, disinvestment and abandonment of the area associated with notions of ‘areas left behind’). It can be argued that individuals who have a strong attachment to their area (and being born in the country where the survey takes place may be seen as a proxy to that) may be more likely to be negatively affected by the area level impacts, especially if they feel that their ‘country does not matter’, following and building on Rodríguez-Pose’s discussion in relation to the ‘revenge of places that don’t matter’ (Rodríguez-Pose, 2018). The latter is seen as the result of the discontent of people who live in declining regions and who have strong community, cultural and emotional ties to these regions. It could be argued that people who were born in the country (which could be seen as a proxy to having strong ties to their country and region) are more likely to have their happiness levels decline due to area-level decline associated with the crisis (in addition to the impact of the crisis to their personal, individual level circumstances).

Moving on from the individual level variables, we now turn to the findings in relation to the spatial contextual variables at the regional and country level that pertain to the economic crisis. In particular, according to our analysis, the level of regional GDP and the value of human development index both have a positive significant effect in all years of the analysis. Similarly, lower levels of income inequality at NUTS1 regional level (living in a NUTS1 region with a Gini coefficient of less than 0.3) have a positive and statistically significant impact on happiness in all years of our analysis. This is consistent with pertinent theoretical considerations in economics, geography and social epidemiology as well as previous empirical work (Ballas, 2021; Wilkinson & Pickett, 2010, 2018; Marmot, 2017). It is also worth noting again here the enhancing impact of the crisis on social and spatial inequalities (Ballas et al., 2017; Pérez & Matsaganis, 2018). Membership of the Euro has a significant and positive effect in 2012, but not in any of the other years of the analysis. This is to some extent contrasting findings of previous studies such as the work of Chadi (2015) we briefly discussed in Sect. 2. The annual growth of regional GDP has a weak negative significant effect in 2008 and a positive and significant effect in 2010 but it is not statistically significant in the other years of the analysis.

We now turn our attention to the models that include country grouping fixed effects. In particular, in all years we examined the group fixed effects differences between the core crisis countries and in particular the unfavourably labelled PIIGS (Portugal, Ireland, Italy, Greece and Spain) and in addition Cyprus. We specified models aimed at estimating fixed effects of all these countries (a group labelled ‘crisis countries’) and the regional groupings of European countries using the EuroVoc official thesaurus of Europe⁴ classification (see Table S4 in the ESM), following previous work that used these groupings (for example, see Potrebny et al., 2017). It should be noted that not all of these *crisis countries* were included in all ESS waves that we analysed. In particular, Italy was only included in waves 6 (2012) and 8 (2016), Greece only in waves 4 and 5 (2008 and 2010), Cyprus was not included in waves 7 (2014) and 8 (2016).

As can be seen in Tables 1, 2, 3, in the year before the impact of the crisis was felt (2008) as well as the two years for which we have data after that (2010 and 2012), there are no statistically significant fixed effect differences between the *crisis countries* (when put together as one group) and the EuroVoc regional groupings. All individual and spatial contextual covariates remain significant in all these models. The first year in which we can see a statistically significant difference in the levels of happiness between crisis countries and the regional groupings is 2014. In particular, as can be seen in Table 4, living in Northern Europe (EuroVoc region) is associated with a statistically significant higher level of happiness compared to the crisis group countries (for 2012 these are Cyprus, Spain, Italy Ireland and Portugal).

Finally, looking at the analysis of 2016 data (Table 5), we observe statistically significant negative fixed effects for Central and Eastern Europe and Baltic region when compared to the crisis countries as a reference group and no statistically significant differences with Northern and Western Europe.

Summarising and comparing these observations across the years, it is worth noting that when considering all crisis countries as one group in 2008, 2010 and 2012 there are no statistically significant differences with any of the EuroVoc regions. This changes in 2014 when the happiness levels in countries that belong to the EuroVoc Northern Europe region are happier compared to the crisis countries. It can be argued that around that time would be when the monetary and psychological effects of the great recession were most severe, especially in the crisis countries. For example, it is relevant to note here that youth unemployment (under 25 year olds) in Spain in 2012 reached a record high of 50.5% and this was also the time of high levels of street protest and expressions of discontent in this country (known as the *indignados* rebellion; see Antentas, 2015).

It can also be argued that the multiplier effects resulting from lower consumption and lower investment as well as overall depressed economic activity are long-lasting (for a more detailed discussion in relation to the crisis countries see Perez & Matsaganis, 2018). It would be reasonable to assume that these effects would have long-lasting impact on the inhabitants of the crisis countries. In addition to the real economic effects of the crisis which in many cases have disproportionately hit the most vulnerable people and regions (Ballas et al., 2017; Perez & Matsaganis, 2018) there is also the contentious political rhetoric and media representation and discourse dimension (with negative connotations for the crisis countries) which was discussed in Sect. 2. In particular, throughout the crisis years there has been an on-going ‘blame game’ and ‘scapegoating’ between what were seen as

⁴ https://eur-lex.europa.eu/browse/eurovoc.html?params=72,7206,911#arrow_911.

creditor and debtor countries contentious political rhetoric referring to “northern saints and southern sinners” (Matthijs & McNamara, 2015) as well as negative media portrayals of southern countries in European media with associated tensions and scapegoating (e.g. see Dooley, 2015; Papanthanasopoulos, 2015; Arrese, 2015). It can be argued that this negative portrayal of countries and regions may have a detrimental impact on the reported happiness levels of the inhabitants of these countries (in addition to the real economic impacts). Brazys and Hardiman (2014) argue that term PIIGS (and similar acronyms) can act as signals that guide and shape market perceptions and present an analysis of how this applied to Ireland. It could be argued that there may be similar processes with regards to perceptions and feelings (including subjective happiness) and labels that have negative connotations.

It is also interesting to note that in 2014 and 2016 the happiness levels in Baltic region countries are statistically significantly lower than the crisis countries. And, in 2016, this is also the case for Central and Eastern European countries. This finding can be attributed to the fact that the Baltic countries were also massively affected by the 2008 global financial crisis economic crisis and this happened well-before the impact hit the southern EU countries. In 2009 the Baltic states were arguably the hardest hit countries in the EU by the economic crisis (Staehr, 2013; Woolfson, 2010) and at that time they were forced to implement an internal devaluation based on unprecedented fiscal and nominal wage adjustments (Purfield & Rosenberg, 2010; Staehr, 2013). Although these countries did receive support from the EU (including the modification, in 2008, of the EU Cohesion Policy to allow member states to draw additional advances on structural and cohesion funds; see Purfield & Rosenberg, 2010: p. 21) they did not receive any so called ‘bailouts’ (Dandashly & Verdun, 2020), although Latvia did receive an IMF loan⁵ and some assistance from the EU⁶. The Baltic countries subsequently joined the Eurozone (Estonia in 2011, Latvia in 2014 and Lithuania in 2015) and were then contributors to the European funds supporting some of the ‘crisis countries’ as defined and modelled in this article, in many cases being among the advocates of stricter policies (together with Germany, Finland, the Netherlands, Austria and Slovakia) associated with receiving these funds (Godby & Anderson, 2016). When it comes to domestic politics and supporting the troubled fellow Eurozone ‘crisis countries’ of southern Europe, there has also been a discussion of ‘voter bailout fatigue’ (Scrutton and Mardiste, 2013), which to some extent may explain the Baltic region fixed effects statistically significant negative difference when compared to the crisis countries. Similar considerations and arguments may also apply with regards to the Central and Eastern Europe fixed effect in 2016, especially given the significant impact of the crisis upon Eastern European countries (Woolfson, 2010) and the relative actual or perceived lack of support for these countries in the form of bailouts (although it should be noted that Hungary and Romania received some assistance and support⁷).

⁵ <https://www-imf-org.proxy-ub.rug.nl/en/News/Articles/2015/09/28/04/53/socar121908a>.

⁶ https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/which-eu-countries-have-received-assistance/financial-assistance-latvia_en.

⁷ https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/which-eu-countries-have-received-assistance_en.

5 Concluding Comments

The analysis presented in this article builds on previous relevant research aimed at understanding the individual as well as geographical determinants of subjective well-being and happiness, with a focus on the countries and years that were mostly relevant to the European Debt Crisis that broke out in 2008. We adopted a multilevel modelling approach to the analysis of suitable secondary data derived from the European Social Survey, as well as relevant contextual regional-level data from Eurostat in order to identify the extent to which the variance of subjective happiness can be attributed to individual and regional contextual factors. Our analysis of individual and contextual (regional) level covariates is widely consistent with previous work. It is interesting however to note the positive and statistically significant association between membership of the Euro currency for 2012 (which might be seen as contrasting previous work on happiness and the Euro; see Chadi, 2015).

A key contribution of the work presented in this article is the analysis of country and EuroVoc regional groupings fixed effects highlighted that living in one of the ‘crisis countries’, associated in political rhetoric and media discourses with unfavourable terms such as PIIGS has a negative impact on subjective happiness around the time when the short, medium and long term effects of the recession would be mostly felt (in 2014), when compared to ‘Northern European’ countries (controlling for an extensive number of important covariates selected on the basis of previous work). This finding is to some extent consistent with earlier work (e.g. Helliwell et al., 2015) suggesting that losses in subjective happiness for countries affected by the economic crisis are greater than what could be explained directly by macroeconomic factors and individual effects (such as higher unemployment).

Another important contribution is the finding that the happiness levels in ‘crisis countries’ as defined in this article were higher than the Baltic countries in 2014 and 2016 and higher than the Central and Eastern European countries in 2016. A possible factor that may be used to explain this interesting finding is the way the crisis was experienced in the Baltic and Eastern European countries, both in terms of the economic impact but also in terms of the political and economic support offered to these EU member states by EU institutions (and especially in comparison to the actual or perceived support received by the southern EU member states that comprise the crisis countries as defined in this article). In particular, a potential explanation for this finding would be the possible perceptions of unfairness or discontent in the Baltic countries and some Eastern European countries which may have lower standards of living but which were also affected by the crisis without the receipt of any so called ‘bailouts’ (Dandashly & Verdun, 2020; Scrutton and Mardiste, 2013).

Further, an additional interesting finding is that at the time when the effects of the crisis would be mostly felt (in 2014), populations born in the country where the ESS took place are on average (after controlling for all other covariates) less happy than those born abroad in one of the years after the breakout of the crisis (2014). To some extent this finding may be attributed to notions of intergenerational social justice and fairness (Alexander Shaw, 2018) and concerns that ‘today’s young people and their children may end up worse off than their parents’ (European Commission, 2017: 12 cited in Alexander Shaw, 2018: 1). As we argued in the previous section, such feelings may be stronger for people who have been born in the country (and are more likely to have stayed there for long times or all their lives, compared to those born outside the

country). Similarly, as we argued in the previous section this finding may also be associated with the possible stronger community, cultural and emotional ties of those born in the country with that country and therefore at times of crisis may be more likely to experience detrimental impact on their happiness as a result of a 'place left behind' effect.

5.1 Limitations and Opportunities for Further Research

The data that we had our disposal were extremely interesting and useful for the analysis of subjective happiness and its determinants, including individual and spatial contextual factors pertaining to the economic crisis. Nevertheless, a key limitation of the data (and by extension of the analysis presented in this article) is that their cross-sectional nature and that survey is bi-annual. In addition, another important limitation is that not all EU countries take part in all waves. Of particular relevance to the research presented here is the limitation that some of the 'crisis countries' (namely Italy, Greece and Cyprus) were not part of all the years in the analysis. Because of these limitations we had to run separate analyses for each year and we were also not able to examine changes in individual happiness instead of observed happiness in the given years. Finally, a theoretical limitation and consideration that should be acknowledged is the direction of causality between happiness and some of the explanatory variables (e.g. see de Neve & Oswald, 2012).

Overall, the research presented in this article can be extended by considering additional contextual factors pertaining to the geography of discontent and relevant media and political discourse as well as possible interactions between levels. In addition, there is great potential to engage further with the highly relevant literature on the geographies of discontent and the revenge of the 'places that don't matter' (McCann, 2020; Dijkstra et al., 2019; Rodriguez-Pose 2018, 2020) from a theoretical as well as empirical perspective, as well as wider cultural geographical considerations pertaining to intergenerational social justice and place attachment.

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