United in Diversity?
An Empirical Investigation on Europe's Regional Social Capital

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Abstract

Purpose: Aiming to explain the European divide with respect to social and political values, scholars in the past have relied on a simplified four- (or even two-) dimensional regime model which tranches the continent according to the social capacities of its inhabitants. This "cartography" of "Social Europe" proves to be outdated by the results presented in this study which re-measures the social capital landscape in Europe.

Approach: In this work, we apply a factor analysis model to the most commonly used approximations of social capital on the European Social Survey. In addition, we explore, as a novelty in social capital literature, a classification tree to model generalized trust.

Findings: The analysis shows that three distinct dimensions of social capital measures are important in Europe: additionally to generalised social capital, which is usually approximated by generalised trust, there is one dimension of civic engagement and one of communitarian values. This distinction leads to a new social landscape of Europe, which highlights the relevance of considering regional and cross-border clusters in all relevant social capital dimensions.The results of the non-parametric model reveal that Protestantism and education are good benchmarks to classify trust on an individual level. Based on these findings we argue for the necessity of policies with a regional focus that take the different sub-national structures of social capacity in Europe into account.

Originality: We re-measure the European Social Capital landscape using current data and provide a novel non-parametrical statistical method from data science for this purpose.

JEL classification: C 33, C 38, D 70, Z 13
Keywords: classification trees, factor analysis, social capital, multi-level modeling

1. Introduction

In explaining the European divide with respect to trust and social capital, scholars in the past have relied on a welfare regime model which tranches the continent according to the social capacities of its inhabitants.[1] Our work, in contrast, creates a regional multifaceted topography of the European landscape of social values based on a solely empirical assessment. First, we

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[1] For instance (Van Oorschot and Arts, 2005), (Van Oorschot et al., 2006) categorise Europe into four welfare regimes and (Kaasa and Parts, 2008) and (Parts, 2013) compare only Western to Eastern European countries.

provide a data-driven measurement of social capital using a factor analysis on a regional basis. Secondly, on an sample of almost 39,000 Europeans from the European Social Survey (ESS), we analyse the resulting social capital factors with a hierachical three-level model and introduce the non-parametric statistical method of decision trees (CART) to the empirical analysis of social capital.

2. Literature Review

One of the most prominent concepts used to assess social capabilities of individuals and societies is that of social capital. Therefore, the same conceptualization is employed in this study to evaluate the differences in social capacity between European regions. However, while this contribution can be classified as part of the social capital research programme, it differs in two important points from many other articles published in this research branch: first, instead of developing empirical measurements based on one or the other theory of social capital, a strictly empirical approach defines the different dimensions of social capital in this work. In doing so, all measures that potentially indicate social capacities and that are part of the European Social Survey have been included in the empirical analysis.

Secondly, with respect to social capital in Europe, this work does not stick to the concept of *welfare regimes* (Esping-Andersen, 1990) which has been used to classify European regions into specific categories according to supposed differences in the structure of their social systems. Instead, this study investigates differences of social capital in Europe on a sub-national, national and cross-national level. This more flexible approach allows to reveal cross-border clusters of social capital and center-periphery structures within countries that could not be detected with data aggregated on a national level.[2] Based on these findings we argue for the necessity of policies with a regional focus that take the different sub-national structures of social capacity in Europe into account.

Besides this policy recommendation, a main reason for our study is to close the gap left open in the literature on social capital in Europe. While there exists more literature on empirical indicators of social capital than could be listed here, most of them stress only a few specific elements of the concept. The focus on some aspects of the multidimensional social capital construct, on the contrary, is due to the fuzzy definition of the concept which is itself a long-debated issue.

[2]This is in accordance with the result that social capital is a regional phenomenon, see for instance (Beugelsdijk and Van Schaik, 2005) or (Pichler and Wallace, 2007).

Beginning with the work by Pierre Bourdieu (Bourdieu, 1986), James Coleman (Coleman, 1988) and Robert Putnam (Putnam et al., 1993), (Putnam, 1995), social capital was built out of four blocks: social norms, networks, trust and civic engagement. However, the definitions used in these contributions were somewhat different to each other, so that they left room for interpretation, particularly with respect to the empirical measurement of social capital (Ackermann and Freitag, 2015). Accordingly, many subsequent studies define social capital based on one or the other of the above-mentioned works and do not include all aspects of the multidimensional concept. Others understood social capital as a multidimensional phenomenon that could not easily be captured by only one measure. This has lead to a discussion on the multidimensionality on a more theoretical basis: for example (Brehm and Rahn, 1997) define social capital as the interplay between interpersonal trust, civic engagement and confidence in government. (Lin, 1999) emphasises the interpersonal network component of social capital, while (La Due Lake and Huckfeldt, 1998, p. 567) consider it as a "by-product of the social interactions" and focus on its role for political participation and (Adler and Kwon, 2002) describe social capital as a valuable resource of goodwill (sympathy, trust, forgiveness) offered to a person by others. As a consequence of these widespread interpretations, some scholars provide deep reflections on the commonalities and differences of the various definitions in order to identify the common roots of the concept, e. g. (Dasgupta and Serageldin, 2001) and (Fine, 2001).

However, these contributions could also not eventually decide on one single definition of social capital. As a consequence, some scholars started to criticise the very concept of social capital as being to fuzzy to use it in explaining socioeconomic phenomena, for instance (Durlauf, 1999), (Sobel, 2002), (Bowles, 1999) and (Paldam, 2000).

Independently of these conceptual criticisms, the number of articles that apply empirical social capital measures increased substantially in the meantime and continues in more recent studies with respect to online-social capital: examples are (Williams, 2006), (Valenzuela et al., 2009), (Mandarano et al., 2010), (Gil de Zúñiga et al., 2012) and (Ellison et al., 2014).

In order to deal with the criticism of a fuzzy social capital definition, some scholars started to incorporate methods of statistical clustering, in particular factor analysis, to empirically assess the interrelation of the various indicators. Examples for those studies with a focus on Europe are (Kaasa and Parts, 2008) and (Parts, 2013) on the differences between Eastern and Western European countries, (Franzen and Pointner, 2007) and (Freitag and Traunmüller, 2008) on sub-national social capital differences in Germany and Switzerland and (Freitag and Kirchner, 2011),

(Van Oorschot and Arts, 2005), (Van Oorschot et al., 2006) on the empirical measurement of social capital in Europe.

However, these contributions do not account for important regional disparities and do not consequently apply a data driven approach of measuring the social capital dimensions, since they provide only a limited number of potential social capital indicators. Rather than composing social capital indicators out of the many different variables the authors take into account, they use the factor analysis only as a confirmation for the variable selection that has been done a priori. The presented work combines the different approaches made by the above-mentioned contributions and adds a regional focus following (Onyx and Bullen, 2000). We hypothesise that there is a conceptual relation between numerous different social capital measures that can be revealed only by empirical clustering. Moreover, we apply the CART decision tree algorithm as a non-parametrical statistical tool to the data, which confirms the empirical findings.

In contrast to previous studies, we assert that social capital is a regional phenomenon with clusters on regional, national and cross-national level in Europe. Recognizing this small-scale structure of social capital could be a key of designing better policies that acknowledge the different social capabilities in the European regions and thus lead to more acceptance.

3. Data and Methods

Our analysis is based on data from the 6th (2012) and 7th (2014) wave of the European Social Survey. This multi-country survey consists of data of more than 54,000 individuals from 34 countries. It contains more than 620 variables for all these individuals. Besides many demographic and economic variables, there are also many questions included in the survey that assess social and political values, so that the data fits very well to collect many different social capital indicators. In order to include as many variables and observations as possible, we decide to merge the 6th and the 7th wave of the ESS.[3] While we try to include all variables that are potentially relevant for the social capacities of Europeans, it turns out that the variable selection entails an important trade-off. In order to provide the most relevant data, the inclusion of the current wave of the ESS appears promising. However, while there are a couple of important survey questions asked only in wave seven, the data has been available only for very few European countries at the time of conducting the analysis. Therefore we decide to join the data with the 2012 edition of the

[3]Additionally, we perform the analysis separately for both waves which does not affect the results significantly. This is also true for different variable-country combinations for which we conducted the factor analysis as a robustness check.

ESS which leads to significantly more observations. Additionally we further have to restrict the number of variables in order to not lose too many relevant European regions, since not every survey question has been asked in all countries. Finally we end up with a data set consisting of 38,447 individuals in 316 regions of 26 European countries.

TABLE 1 ABOUT HERE

In sum, we can identify 26 variables that are potential indicators of social capital. These are displayed in table 1.[4] Note that we do not pre-classified the variables; the four categorical variable-labels (p, c, g and n) are already the result of the empirical clustering. Some of the variables describe certain actions done by individuals (e. g. the question whether one worked for some kind of organization or association in the last 12 months), others are more closely related to interpersonal networks (e. g. the question whether one meets often with colleagues or friends), a third category is about social values (like the question whether it is important for an individual to understand different people) and a fourth type of questions is about trust. Thus, the different questions capture all categories of social capital that are discussed in the literature.

Factor Analysis

In a first step, several possible factors, with different factor loadings, are compared by their eigenvalue. The *Kaiser criterion* in factor analysis recommends to use only factors with an eigenvalue of higher than one. The eigenvalues of the initial set of factors suggested in our example are displayed in a so called *screeplot*, see figure 1. Accordingly, three factors are taken into consideration. The high eigenvalue of factor one already exhibits that this factor, as a linear combination of the underlying measures, explains to a large extent the overall variation of the social capital measures.

FIGURE 1 ABOUT HERE

In a second step, in order to distribute the factor loadings of each variable more distinctively among the three factors and thereby identify each variable more precisely with one factor, a *varimax rotation* method is applied. The results of the factor analysis are presented in section 4.

[4] All figures and tables can be found in the appendix starting on page 15.

Multi-Level Analysis

In order to investigate the individual and regional characteristics that are the important determinants of the three social capital factors, we apply multiple three-level hierarchical linear models (HLM) with the three factors as dependent variables and individual and regional covariates as independent variables. This multi-level approach is imperative, since the data is nested with respect to three levels: the questionnaire is based on individual level data, but the social capital theory outlined in the literature review suggests that regional and cross-national characteristics play also an important role for the level of individual social capital.

This way of modeling allows for different slopes and intercepts of the individuals in the regression equation and thus corrects for errors that could occur if the higher-level clustering of the individuals was ignored. Thus, we avoid biased results that could occur if we were to apply a simple multiple regression, as it has been occasionally done in the social capital literature. In the model presented in this study, we incorporate the same individual covariates as Van Oorschot et al. (2006), but with the introduction of regional characteristics (GDP per capita and share of people without paid work) and the application of an HLM we extend the literature also from a methodological point of view.

4. Results

Empirical Relation between the Social Capital Indicators

The factor analysis illustrated in figure 1 and 2 shows that there are three latent factors which capture most of the variation of the 26 social capital indicators that are part of the ESS. Interestingly, the variables with the highest weight for the distinct factors have high conceptual similarities. While the variables that are highly weighted with respect to factor 1 involve questions about civic participation and political engagement (e. g. "Involved in work for voluntary or charitable organizations in the last 12 months"), the variables that determine factor 2 are very closely related to each other and refer to statements about the society in general (e. g. "Generally speaking, most people can be trusted") and the variables with the highest loading on factor 3 are entirely related to the local community (e. g. "People in the local area help one another").

Due to these conceptual commonalities between the three factors we label them according to those social capital dimensions they represent most closely. Since factor 1 is mainly about civic participation, it can be labeled *civic social capital* or *civicism*. Factor 2 involves variables with a general focus and can therefore be marked as *generalised social capital*. And since factor 3 consists

essentially of variables about the local community, the term *communitarian social capital* best describes this factor.

TABLE 2 ABOUT HERE

The extent to which the factors are related to each other can easily be assessed with a look on the correlations between them, displayed in table 2. There is a positive correlation between factor 1 (civicism) and factor 2 (generalised social capital) and a negative correlation between factor 2 and factor 3 (communitarian social capital). The correlation between civicism and communitarian social capital is not significant. What does this tell us? First, people with a higher level of generalised social capital tend to be more engaged in the society. Secondly, those with a stronger focus on their local community tend to have a lower level of generalised social capital. Thirdly, the extend to which someone is politically or civically engaged does not necessarily depend the level of communitarian social capital.

While the three factors together capture much of the overall variation of all the variables, each single variable measures only a specific dimension of social capital. That means it is not appropriate to select one or the other variable arbitrarily to construct a common social capital indicator, but such a selection should be done carefully with respect to the aspect of social capital one wants to approximate with the chosen variable. We illustrate this with factor 2 as an example: the three variables with the highest loading on factor 2 are plotted so closely within the 3D-scatterplot that it is hard to distinguish them. That means that they capture more or less the same information - all three variable have a very high loading on factor 2 and very low weight on the other two factors. This is different for the variables of factor 3. There is much more variation within this group of variables; for example c1 ("Feel people in local area help one another") is similar to other questions within the cluster but shows also some loading on factor 2. In contrast, the variables with a high loading on factor 1 are relatively closer related to each other than to the other factors.

Furthermore, other variables take only a relatively low weight with respect to all three factors. This indicates that these variables do not explain much of the overall variation. This result is revealing, since some of these variables have been used as main empirical dimensions of social capital. For example (Freitag and Kirchner, 2011) use the questions "How often do you meet socially with friends, relatives or work colleagues?" (ESS-code: sclmeet) and "Compared to other people of your age, how often would you say you take part in social activities?" (ESS-code: sclact) as two out of four main determining variables of a common social capital indicator, while their loading is particularly low in this study.

The Social Topography of Europe

The value of the data driven clustering becomes apparent, when regional differences of the factors are considered. Figure 3 displays the average values of the three factor for the 316 European regions that are part of the data set. For the purpose of comparison with previous studies, the data points are colored according to the geographic cluster the countries belong to. With respect to all three factors, there is a significant variation which is remarkable, since the analysis yielding three factors does not consider any geographic information of the individuals. This result supports the assertion made in the previous section that inferential models used to explain social capital in Europe necessarily have to consider the multi-level grouping of individuals into regions and country-clusters.

FIGURES 3 AND 4 ABOUT HERE

The large variation on all social capital dimensions on the regional, national and cross-national level are emphasized in the fishbone plot in figure 4. Each boxplot represents a country ordered by cross-country cluster and the units of observation are the regional average values for each factor in all the 316 regions. Between and within each cross-country cluster, and within some countries there are large variations of the respective social capital dimensions. This illustration highlights the need for considering the spatial distribution of the individual social capital components within and between countries. Examples for the different level of spatial clustering are provided in table 3.

Some cross-national regions show similar levels of a particular social capital factor that allow to group them into a cross-national clusters. Examples for this are the Eastern European countries for civicism and the Northern European countries for general and communitarian social capital. Other countries show small within-country variation - a good example is Belgium: while the within-country variation of factor 1 and factor 3 is very small there is much variation with respect to factor 2. The analysis moreover helps to identify countries with a high level of within-country variation on specific factors that a regional perspective on its social capacities appears more appropriate. Examples are Italy for all three factors, Sweden on factor 1 and Bulgaria on factor 2 and 3.

TABLE 3 ABOUT HERE

The significant differences between the regions and countries in Europe are moreover illustrated as maps in the figures 5 to 7. We observe the common north-south and a west-east divide in Europe only for the case of civic and general social capital, but not for communitarian social capital.

FIGURES 5 to 7 ABOUT HERE

A First Step to Explain the Social Divide in Europe

The multi-dimensional differences in the social cartography of Europe can be related to several individual as well as regional covariates in an inferential hierarchical multi-level model. Table 4 summarises the results of the model for each social capital dimension. These models extend results from previous studies (Van Oorschot and Arts (2005) and Van Oorschot et al. (2006)). In contrast to them, the multi-level approach allows for different intercepts and slopes of the individuals who belong to different groups (i. e. regions and cross-country clusters). As a consequence, these models capture the hierarchical grouping of the individuals and thus provide unbiased estimates for the effect of the individual-level determinants of social capital. Additionally the models capture the quantitative effect of regional characteristics and the cross-national clustering.

TABLE 4 ABOUT HERE

Some of the individual characteristics affect all social capital dimensions similarly. For example, unemployed or sick individuals tend to have lower values on social capital, while the membership in the Protestant church can be associated with higher levels of social capital. In contrast, many of the individual characteristics affect the three social capital dimensions differently, which makes it possible to describe the factors more precisely in relation to the demographic variables. Higher civic social capital is positively correlated with age, higher education, student status and membership in a Protestant church. In contrast, people who do not actively take part in the society (i. e. retired, sick or people responsible for housework) or those with a rather conservative political stance have on average a lower level of civic social capital.

Similarly, generalised social capital is positively associated with education and student status. In contrast, communitarian social capital is driven positively by religion and a more conservative stance. This result is in accordance with the interpretation of communitarian social capital as those values that are more oriented on traditions.

Interestingly, the cross-country dummies are not significant for factor 3, while they are highly significant for the other two factors. This result confirms the descriptive observations made earlier about the social topography of Europe.

5. Classification Techniques in Social Capital Research

This section complements the previous investigation with a non-parametric approach. This shall serve as an example of the application of non-parametric statistics not only to social capital research, but likewise to many other fields in empirical social science. More and more, non-parametric statistical techniques from data science and machine learning are starting to find application in social science. In most cases, classification techniques are tested as an alternative approach to frequentest statistical estimations. One of the most commonly considered classification techniques are Classification and Regression Trees (CART).

The target feature in our example is generalized trust. The feature is constructed in a binary fashion summing all individuals with reported values from 0 to 5 under 0 and all individuals who reported a value of six and higher under 1. The initial sample of 36,365 individuals has a distribution of 52 percent with low and and 48 percent with high levels of generalized trust. The feature set is chosen accordingly to the characteristics in the previous multilevel model. Macro-level features are not taken into consideration. Figure 8 illustrates the results of the classification algorithm.

FIGURE 8 ABOUT HERE

The first splitting feature is education (the arrow to the left always leads to a subsample for which the splitting criterion is true). The original sample is split in two subsamples, those with an educational attainment below ISCED 5 (67.9 percent) and those with a higher level of education (32.1 percent). For the ladder subsample the next splitting criterion is whether the individual belongs to a non-protestant religion. After selecting all individuals, who are of Protestant religion and have a high level of education, the first terminal node is reached. No other feature could yield better data purity when applied as a splitting criterion. This first terminal node also has the lowest Gini and the highest proportion of individuals with high levels of trust (75 percent). On the other hand, following the ISECD 5 splitting criterion to the very left of the three, one begins a branch of the decision tree that ultimately leads to the node with the lowest share of individuals with high trust values (second node from the left in the sixth row). This subsample contains individuals, who 1) have an educational attainment below higher tertiary education ($<$ ISCED 5), 2) are no Protestants, 3) state a specific religion, 4) have at maximum higher secondary education ($<$ ISCED 3), and 5) and are older than 21 years. Of the remaining 11.7 percent of the original sample (4,255), 71 percent (3,021 individuals) reported trust levels of 5 and lower.

Even though the presented case is just an example of how classification algorithms can be applied to social capital research, it confirms the findings of the parametric multilevel model. Education and religion, most pronouncedly protestantism, are strongly related to levels of generalized trust. However, unlike the previous model, the classification approach reveals that employment and political opinions are of little additional significance.

6. Policy Implications and Conclusion

What can be learned from the descriptive and inferential results presented in this study? First, social capital provides a theoretical framework to capture the differences in social capacity in Europe. This concept has been of interest to sociologists, political scientists and economists for the last decades and was used to explain many different socio-economic phenomena. However, it has often been defined somehow arbitrarily and was therefore prone to the severe criticism that the concept is not able to explain anything if it builds on such a weak definition that it can be used to explain everything. As an empirical answer on this critique and in continuing studies that went into this direction, we provide a solely data-driven approach to measure social capital with European Social Survey data.

Secondly, this approach allows to empirically cluster all variables about social norms, values, attitudes and participation in the ESS into three distinct categories. The resulting categories show strong conceptual similarities which allow to label the groups as *civic*, *generalised* and *communitarian social capital*. This empirical result supports the arguments of those scholars who are in favor of the multidimensional character of social capital. Moreover, the empirical and conceptual proximity of the variables clustered in each factor shows that there are important relations between the different indicators of social capital that should not be ignored.

Thirdly, the empirical classification of social capital clearly captures the regional disparities in Europe with respect to social capacity. Even if we control for numerous individual and regional covariates, the spatial clusters in Europe play an important role in explaining the individual level of social capital in all its dimensions. Furthermore, the regional averages of the three social capital factors are highly volatile and clustered not only on national, but also on regional and cross-national level.

Why are these results important? The results suggest that the spatial pattern of social capital is more complex than described in earlier studies. If one wants to map the social cartography of Europe, it is not enough to stick to a simplified two- or four-dimensional classification of countries

into welfare regimes. Instead, it is important to appreciate the regional and border-crossing structure of social values, norms and actions. This is even more essential in the face of major disputes in the European Union against the background of debates about refugees and financial crisis. If policies with a potential influence on all European societies should be successful, they need to take a regional perspective on the social capacities of the population in the different countries. Social norms and values differ substantially not only between countries, but also within them. Center-periphery structures are pronounced not only between old and new member states of the European Union, but also within countries like Sweden. This regional spatial structure has been considered in other areas like European environmental policy (Lenschow, 2002), regional economic cohesion (Clarysse and Muldur, 2001) or innovation policy (Tödtling and Trippl, 2005) and it needs to be considered also with respect to social capacity in Europe.

This article provides an overview of the social topography in Europe and sketches possible determinants that might be important to explain the European social landscape. However, it is only one step in this direction. Further research aiming to explain the social differences in Europe could employ spatial econometric models to investigate the cross-regional social interdependencies. Since this study is concentrated on the ESS and took the survey questions as they are, it could also be of interest to compare different surveys in Europe on the same research question. Moreover, from a methodological point of view, it could be worthwhile to compare different statistical clustering methods and further examine the benefit of applying hierarchical linear models for social capital research.

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7. Appendix

Figures

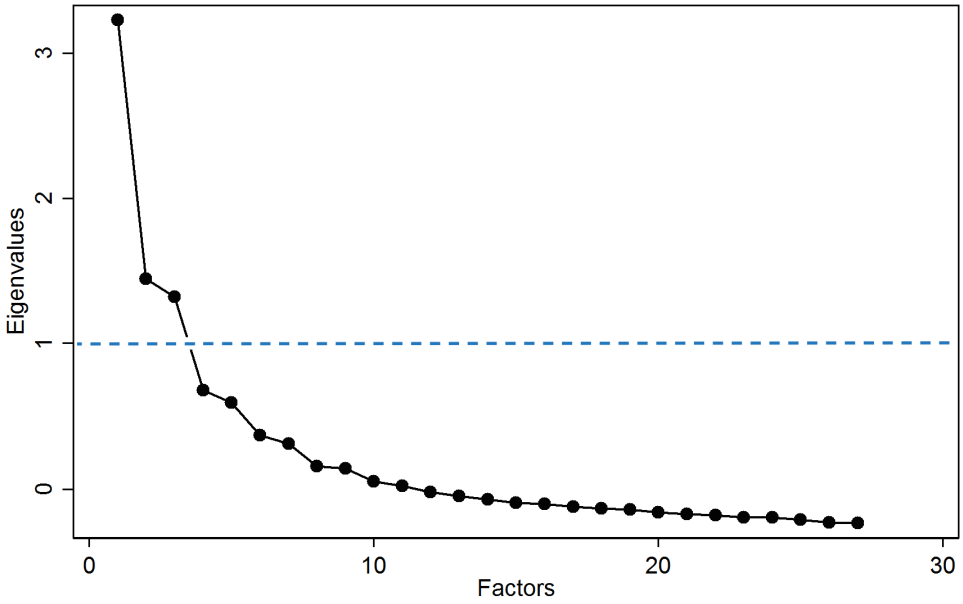

Figure 1: *Screeplot of the Factor Eigenvalues*: the factor analysis leads to three distinct factors with an eigenvalue higher than 1 that capture together all the variation of the social capital indicating variables.

Source: European Social Survey 6, 7 and own calculations

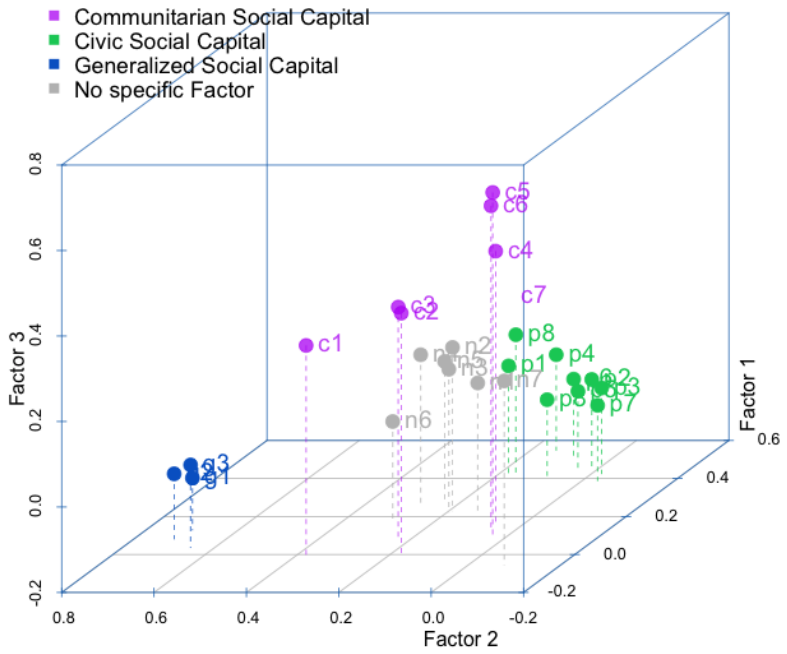

Figure 2: *Factor Loadings in the Model derived by the Factor Analysis*: the factor analysis reveals that the variables that measure social capital can be assigned into three distinct categories: *civic, generalised* and *communitarian social capital*.

Source: European Social Survey 6, 7 and own calculations

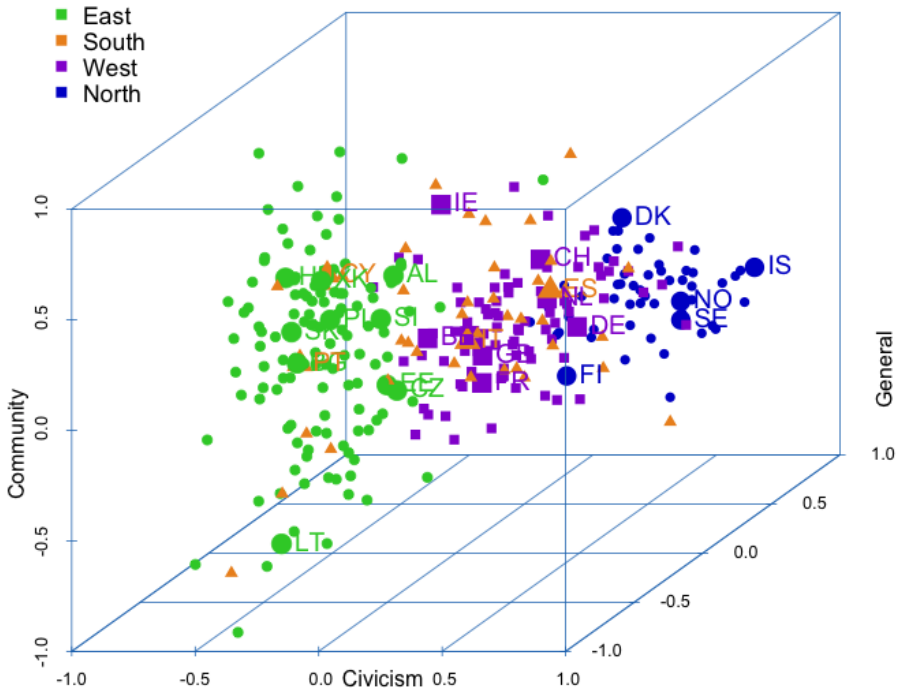

Figure 3: *The Different Social Capital Regimes in Europe*: there are significant differences between the European regions with respect to civic, generalised and communitarian social capital. There is also much variation within the country clusters, in particular for communitarian social capital in Eastern Europe.

Source: European Social Survey 6, 7 and own calculations

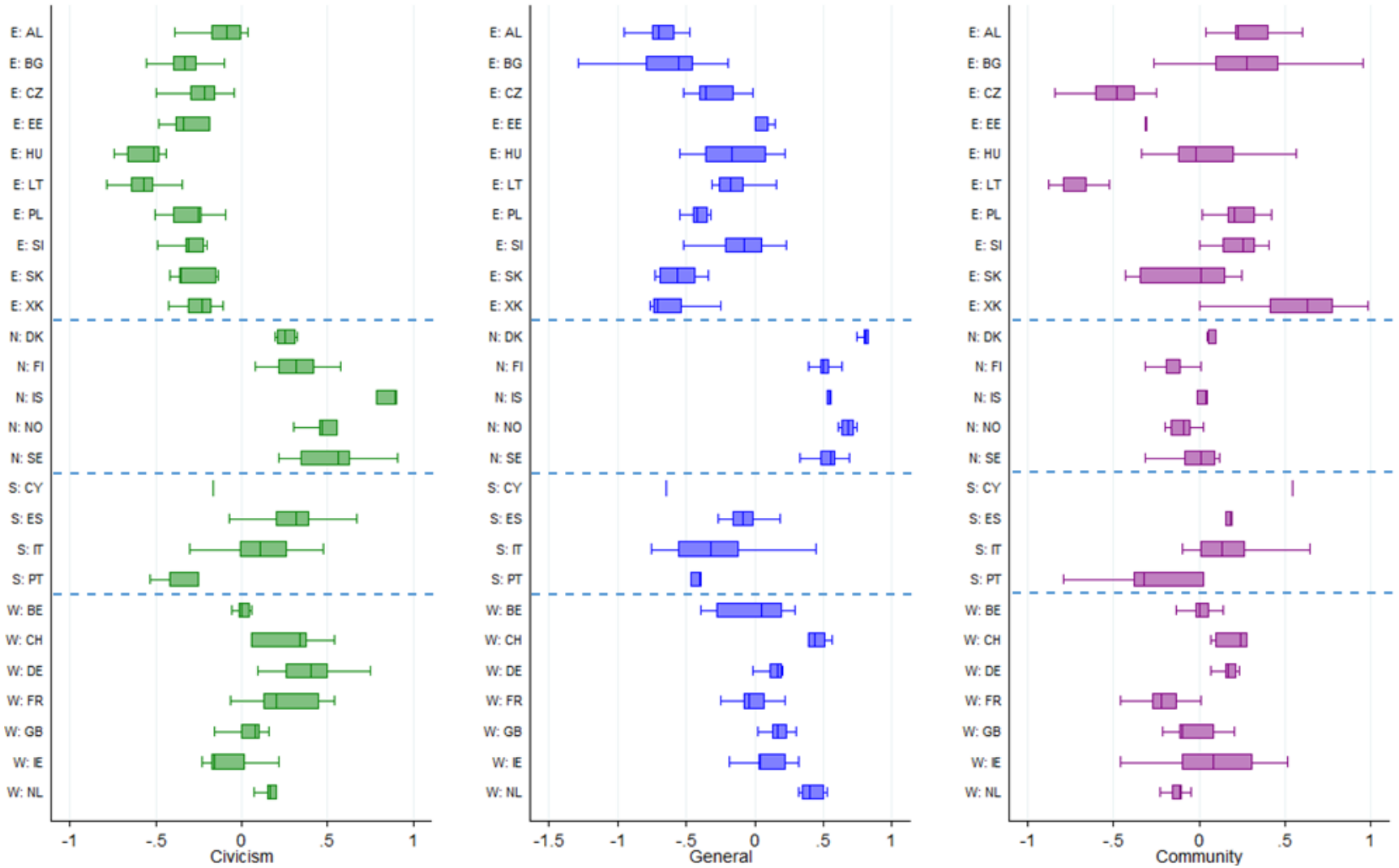

Figure 4: *The Variance of the three social capital dimensions in Europe*: the regional average of the social capital factors vary substantially in Europe; not only between countries, but also within some countries.

Source: European Social Survey 6, 7 and own calculations

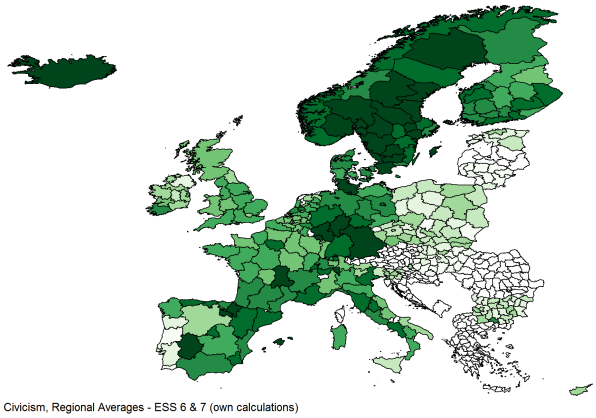

Figure 5: *Civic social capital in Europe*: There are major regional differences with respect to civicism in many European countries, while the Eastern European regions show very low values of that social capital dimension.

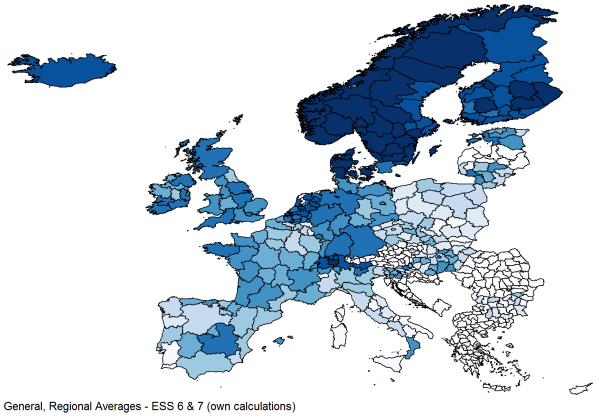

Figure 6: *Generalised social capital in Europe*: A north-south and east-west-divide is prevalent.

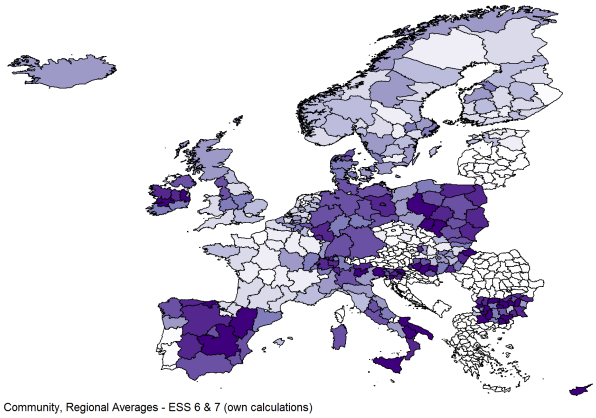

Figure 7: *Communitarian /traditional social capital in Europe*: Eastern European countries and regions with a majority of Catholics show higher values of communitarian social capital

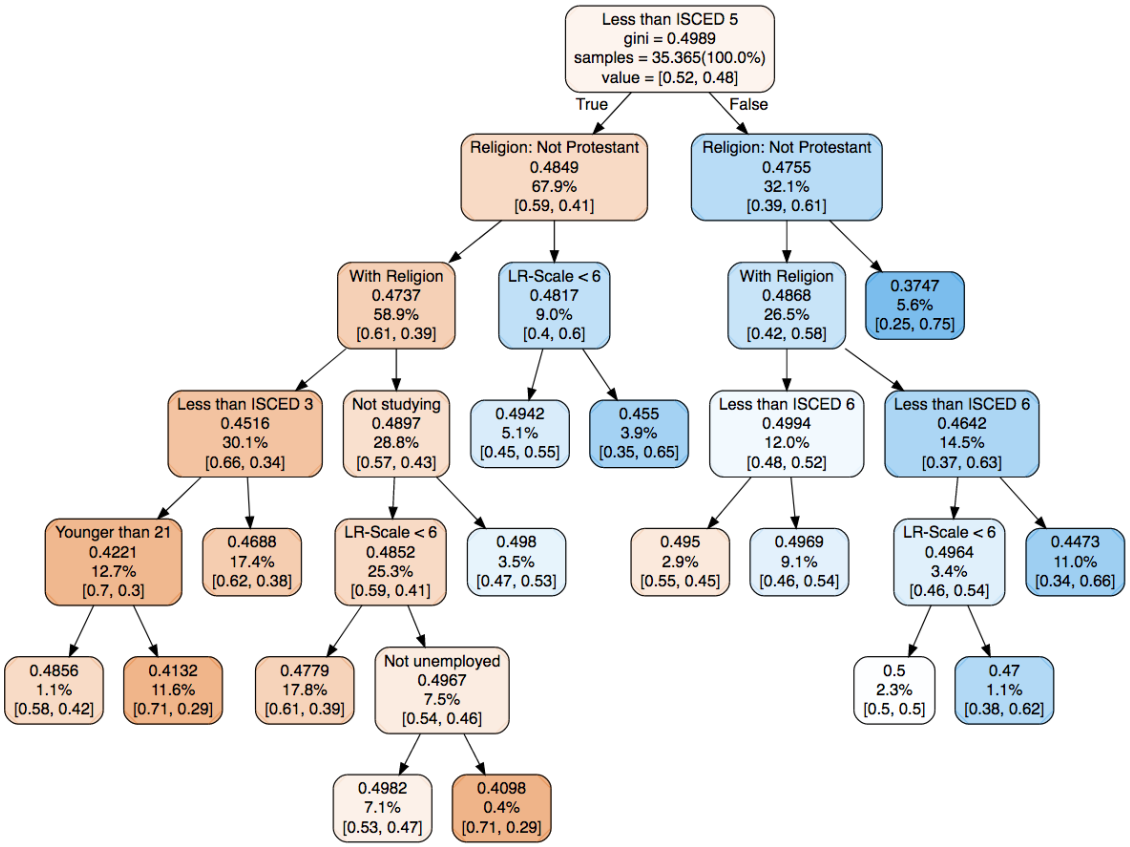

Figure 8: *The binary target feature is generalized trust*: The first line in each node indicates the next splitting criterion, while the second line reports the Gini index, and the last line the distribution of binary generalized trust.

Source: ESS7 and own calculations

Table 1: *Social capital indicating questions in ESS 6 and 7*:

ESS-Code	Description	Abbr.
polintr	How interested in politics in general	p 1
contplt	Ever contacted a politican or government official in the last 12 months	p 2
wrkprty	Worked for a political party or action group in the last 12 months	p 3
wrkorg	Worked in another organization or association in the last 12 months	p 4
wkvlorg	Involved in work for voluntary or charitable organizations in the last 12 months	p 5
badge	Worn or displayed campaign badge/sticker in the last 12 months	p 6
sgnptit	Signed a petition in the last 12 months	p 7
pbldmn	Taken part in lawful public demonstration in last 12 months	p 8
bctprd	Boycotted a certain product in the last 12 months	p 9
ppltrst	Generally speaking most people can be trusted, or you can't be too careful	g 1
pplfair	Most people would try to take advantage of you, or try to be fair	g 2
pplhlp	Most of the time people try to be helpful, or mostly looking out for themselves	g 3
pplahlp	Feel people in local area help one another	c 1
flclpla	Feel close to the people in local area	c 2
flapppl	Feel appreciated by people you are close to	c 3
ipudrst	Important to understand different people	c 4
iphlppl	Important to help people and care for others well-being	c 5
iplylfr	Important to be loyal to friends and devote to people close	c 6
imptrad	Important to follow traditions and customs	c 7
vote	Voted in last election	n 1
implvdm	How important for you to live in democratically governed country	n 2
sclmeet	How often socially meet with friends, relatives or colleagues	n 3
inprdsc	How many people with whom you can discuss intimate and personal matters	n 4
sclact	How much do you take part in social activities compared to others of same age	n 5
aesfdrk	Feeling of safety of walking alone in local areas after dark	n 6
rlgatnd	How often attend religious services apart from special occasions	n 7

Source: European Social Survey 6, 7

Table 2: *Correlation between the SC factors*: While generalised social capital is positively correlated to civicism, the relation to communitarian social capital is negative. the other factors are not significantly related to each other.

	Civicism	General	Community
Civicism	1.000		
General	0.571***	1.000	
Community	-0.025	-0.247***	1.000

*** $p < 0.01$ Source: European Social Survey 6, 7 and own calculations

Table 3: *Examples for the different dimensions of social capital in Europe*: The social landscape of Europe is complex - there are not only different dimensions of social capital, but these dimensions show specific spatial structures.

	Civicism	General	Community
Regime	East	North	North
(low within-regime variation, high between-regime variation)			
Country	Belgium	Portugal	Spain
(low within-country variation, high between-country variation)			
Region	Sweden	Italy	Bulgaria
(high within-country variation)			

Source: European Social Survey 6, 7 and own calculations

Table 4: *Multilevel model explaining the three distinct social capital factors*: The disparities in social capital are significant between the macro-regions in Europe, while this effect is different for the three different dimensions of social capital.

Model on Social Capital:	Civicism (1)	General (2)	Community (3)
Gender (ref. = Female)	0.086***	ns	-0.176***
	(0.009)		(0.009)
Age	0.020***	-0.009***	ns
	(0.002)	(0.002)	
Age Squared·1000	-0.001***	0.001***	0.001**
	(0.000)	(0.000)	(0.000)
Education (0-8)	0.121***	0.067***	ns
	(0.002)	(0.002)	
Status (ref. = Paid Work)			
Student	0.297***	0.094***	ns
	(0.023)	(0.023)	
Unemployed	-0.042**	-0.180***	-0.100***
	(0.018)	(0.017)	(0.018)
Retired	ns	-0.076***	ns
		(0.016)	
Disabled, Military, etc.	ns	-0.296***	-0.105***
		(0.026)	(0.027)
Housework	-0.052***	ns	ns
	(0.017)		
Religion (ref. = None)			
Roman Catholic	-0.048***	ns	0.298***
	(0.012)		(0.013)
Protestant	0.050***	0.058***	0.252***
	(0.014)	(0.014)	(0.014)
Other	-0.057***	-0.155***	0.362***
	(0.019)	(0.019)	(0.020)
Left-Right-Scale	-0.025***	0.014***	0.017***
(0 Left -10 Right)	(0.002)	(0.002)	(0.002)
Regional covariates			
GDP per capita	ns	0.001*	ns
(2012, in EUR)		(0.000)	
Without paid work	-0.271*	ns	ns
(2012, in percent)	(0.158)		
Regime (ref. = West)			
East	-0.440***	-0.319***	ns
	(0.044)	(0.053)	
North	0.186***	0.386***	ns
	(0.036)	(0.043)	
South	0.129***	-0.255***	ns
	(0.040)	(0.047)	
Observations	30,584	30,584	30,584
Number of groups	288	288	288
AIC/Obs	2.245	2.191	2.254
BIC/Obs	2.251	2.196	2.259

Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: European Social Survey 6, 7 and own calculations