

Impact of Cohesion Policy funding on European identity and citizens' support for EU: findings from a novel dataset

by Valentina Aiello, Cristina Brasili*, Pierre Maurice Reverberi**

*Department of Statistics "Paolo Fortunati", University of Bologna
Via delle Belle Arti 41, 40126 Bologna

valentina.aiello3@unibo.it

cristina.brasili@unibo.it

pierre.reverberi2@unibo.it

Abstract

The objective of this paper is to offer an empirical systematization and assessment of the mechanisms for the development of individuals' support for the EU integration and EU identity as they have been advanced by the utilitarian theory, and to test for the existence of a cohesion Policy effect. It does so by taking advantage of two novel sources of data and by adopting a regional approach that has yet to be proposed in this field of literature. The results highlight the prevalence of egocentric and subjective mechanisms over sociotropic and objective ones, thus calling for more emphasis on communication and pointing to the importance of policy targets that are in line with the people's perceived needs.

Section 1. Introduction

2018 marks an important step in the history of the European Union, as Cohesion Policy, one of the supposed main drivers of the European values across different territories, turns thirty this year. Such a recurrence comes at a time that does not leave Europe-enthusiasts much room for celebrations. Recent national elections in Member States, both old and new, have been marked by the increasing popularity of the Eurosceptic positions and the declining trust towards EU institutions, as the British citizens' manifest surge of anti-EU positions has been followed by yet less harmless but similarly threatening political patterns in Poland, France, Germany and Italy.

The roots of this trend have to be traced back to the 2008 financial crisis, and the following economic recession that widened the gap between winners and losers of the globalization process. As a champion of the benefits brought by market integration and free movement of people and capital, the European Union easily became the main target of the growing political discontent which populist parties managed to flourish upon, especially among the most vulnerable segments of society. Cohesion Policy, which has a redistributive touch but has to be classified as an investment policy, seemed to have done little against these surging feelings, because of reasons that might relate both with the financial endowments and the way the policy is designed and implemented.

These trends have revamped the attention for the mechanisms underpinning the construction of a sense of European identity among EU citizens and their support for the EU. As pointed out by Habermas (2012) and Risse (2014), the identification of individuals with other European citizens and the trust towards other Europeans are preconditions to the establishment of a European community and to the legitimization of the process of European integration. Identification with and support for the EU have built on the latter's capacity to deliver to the promise of enhancing national economic welfares (Eichengreen and Dalton, 1993), a commitment that was recently renovated through the Europe 2020 Strategy for a smart, sustainable and inclusive growth. The consequences of the economic crisis on Europe's political climate seem to confirm the utilitarian perspective, according to which citizens' support and identity involve some kind of cost-benefit analysis that evaluates pro and cons of being part of the EU and experiencing its policy.

The utilitarian approach has received considerable attention by scholars of the European integration (Cram, 2012; Gabel and Palmer, 1995; McLaren, 2004), but only a few studies have also tested this perspective with respect to the development of identity (Verhaegen et al., 2014).

This paper aims to contribute to this debate by shedding light on the mechanisms that lie behind citizens' attitudes towards the European Union and to assess the contribution of Cohesion Policy in influencing their support for the European Union and their sense of feeling European. Its contribution to extant literature is twofold: on the one hand, it takes advantages from novel datasets on i) citizens' support for and identification with the EU identity and ii) on the European Structural and Investment Funds (ESIF) payments and expenditure; on the other, it is the first study that adopts a regional perspective. This allows to take into account the spatial emphasis that has recently characterized academic and political debates over Cohesion Policy and EU in general, where in the former it was crystallized in the place-based approach to territorial development (see Barca, 2009), and in the latter it took the form of the regional/separatist movements and rhetoric used in opposition to central authorities (see Catalonia's referendum for independence but also the requests for higher decentralization recently put forward by the Italian regions of Lombardy, Emilia-Romagna and Veneto). It also allows not to overlook the recent dynamics of territorial inequalities across the European Union, which have seen the decrease of the between-country component and the increase of the within-country one (Muštra and Škrabic, 2014; Vacas-Soriano and Fernández-Macías, 2018).

The paper is organized as follows: Section 2 presents the theoretical framework, which discusses the concepts of support and identification, the economic utilitarian approach as well as the other main perspectives offered by extant literature; Section 3 presents the data and the statistical model used to empirically test the three hypotheses of this paper; Section 4 shows and comments the results of the empirical analysis in the different steps it has been carried out; Section 5 concludes providing final remarks and policy recommendations that are linked to the ongoing debate around the post-2020 framework of Cohesion Policy.

Section 2. Theoretical framework

Support to (the integration of) the EU and European identity are distinct yet partially overlapping concepts. An extensive review of the different conceptualizations of support offered by the literature is in Loveless and Rohrschneider (2011), which also show the different ways support has been operationalized in surveys and in public opinion analyses. Here we consider support to the European integration as a positive attitude towards a closer cooperation between European member states (Eichenberg and Dalton, 1993).

The concepts of identity and identification with the EU have been analysed in the literature in terms of individual and collective European identity. Individuals' identification can be explained as "*citizens' self-categorisation as European together with their evaluations of their membership in the European collective and their affective attachment to Europe and other Europeans*" (Bergbauer, 2018, p.6). Bergbauer's definition is grounded on Tajfel's work in the social psychology field (Tajfel, 1981). Her conceptualization of individual identity includes a cognitive, an evaluative and an affective dimension, which focus respectively on the individual's self-categorization (awareness) as a member of a group, the negative or positive value connotation assigned to it and the emotional attachment (the we-feeling).

The cognitive and evaluative dimensions are at the core of the concept of collective identity as defined by the social psychology approach (David and Bar-Tal, 2009), while the we-feeling or sense of community lies at the root of the sociological perspective towards collective identity put forward by Easton (1965). Bergbauer (2018) combines the two approaches by offering the following normative definition of European identity: "*A collective European identity will be stronger, the higher the number of EU citizens who identify with Europe, the stronger citizens' identification with Europe, and the more citizens are aware of other citizens' identification with Europe*" (Bergbauer, 2018, p. 25). As it is highlighted by Jiménez et al. (2004), in contrast to longer historically rooted national identities, European identity is primarily instrumental, in the sense that it is at least partially influenced by the citizens' perception of the benefits they get from EU integration. European identity is thus more contingent, yet it is more stable compared to support for the EU integration, which can fluctuate in accordance with swift change in public opinion, as shown by Van Ingelgom (2014).

Given the economic motivations underpinning the construction of the European Union, the main theoretical framework for explaining the development of the support for EU integration and EU identity adopts an economic utilitarian approach. According to the utilitarian model of public support, first proposed by Gabel and Palmer (1995), EU citizens in different socioeconomic contexts have different experiences of the costs and benefits associated with integrative policy. In such a perspective, citizens are rational actors who are more (less) supportive of the European integration the more (less) they reap its benefits and avoid its costs.

The factors intervening in this rational calculation, however, can differ: the egocentric point of view (Gabel and Palmer, 1995) claims that EU citizens' support for European integration is mediated by their microeconomic considerations and positions regarding market liberalization: wealthy citizens can benefit from capital liberalization, thus exploiting the

greater investment opportunities provided by the European Single Market, while citizens with low income could see their welfare being reduced as liberalization makes it less costly for capital to move rather than to accede to labour demands, thus making them less supportive of the European integration (Gabel, 1998).

The sociotropic point of view, on the other hand, puts more emphasis on the macro-scale, as it advocates that individual's support depends on their evaluation of national economic conditions, proxied by variables such as the GDP growth and the unemployment or the inflation rate, and that residents of countries that are net recipients of European Union spending are more likely to support European integration compared to those from donor countries (Anderson and Reichert, 1995; Brinegar et al., 2004; Diez Medrano, 2003; Hooghe and Marks, 2005). Along with objective factors, however, subjective economic evaluations can intervene. Citizens who feel confident about the economic future are more likely to look at European integration in a positive light, whereas those who are fearful will lean towards Euro-scepticism and their attitudes may be more sensitive to group identities (Hooghe and Marks, 2005). Knowledge and information are two factors, as well. As pointed out by Levy and Phan (2014), citizens tend to be generally uninformed about EU policies and the real economy, which makes it unlikely that an individual's support be determined on the basis of objective economic measures. As a consequence, any utilitarian consideration will be made on the basis of citizens' perception of the surrounding world.

This theory is corroborated by empirical evidence, as scholars have found that objective national economic conditions influence citizens' support for EU integration only to a limited extent (Gabel and Whitten, 1997), and that perceived costs and benefits are what largely drive the attitudes of both sociotropic and egocentric individuals. Verhaegen et al. (2014) show that the economic utilitarianism hypothesis holds true also for the identity formation, although to a weaker extent compared to support for integration, and confirm that perceptions about benefits contribute more than objective economic indicators do.

Most of the empirical works are at national-level. In our opinion this has the effect of limiting the scope of the investigation of the role of one of EU's most prominent policy, Cohesion Policy, which has a mainly regional dimension. Initially conceived as an investment policy aimed at fostering economic growth in less developed regions, Cohesion Policy has eventually become the flag of a European way of policymaking able to shape national and local contexts, on both a political and economic level. Capello and Perucca (2017) list four reasons why Cohesion Policy is a vehicle for the development of European identity: i) it exerts a daily life impact by helping national and local governments address regional needs; ii) with a total

budget of about 350 billion euro both in the 2007-2013 and in the 2014-2020 programming periods, Cohesion Policy corresponds to one third of the EU total budget and has the second largest share of resources after the Common Agricultural Policy; iii) the implementation of Cohesion Policy is carried out at regional level, in compliance with the multi-level governance system and the partnership principle which aim at increasing the policy's legitimacy through the involvement of local authorities and populations; iv) the largest part of resources targets "convergence" regions in order to help them catch up with richer ones, thus conveying a sense of solidarity and community among different territories.

The previous studies on the relationship between structural funds and support for European integration shows conflicting results. A study by Duch and Taylor (1997), using regional allocation data in 1983 and 1986, found that Cohesion Policy funding transfers do not affect positively public support for the EU. Osterloh (2011), on the contrary, finds that an increase of per capita transfers by 100 Euro increases the probability of being supportive of the EU to the extent of approximately 5 to 15%, and that a relevant role in this relationship is played by awareness, which in turn is highly dependent on individual characteristics, such as education, and the information source through which it is generated, with TV having a positive and sizable effect. Verhaegen et al. (2014) found that EU funds have a negative relationship with support for EU integration. According to Chalmers and Dellmuth (2015), this is because the relationship between transfers and support to integration is mediated by three factors through which individuals interpret the financial gains derived from the ESIF: (a) a positive predisposition to European integration, (b) the capacity to receive and interpret signals of economic solidarity, and (c) political parties' stance on supranational redistribution. The same authors find that the impact of the ESIF on support depends on the extent to which spending is consistent with the regional economic needs, and that the effect of spending in human capital infrastructure and environment is stronger than in other areas (Dellmuth and Chalmers, 2018).

Fewer works are available on the relationship between EU transfers and identity. Scheuer and Schmitt (2009) theorize that higher levels of European identity in the Southern countries might be due to the higher flow of structural funds, while the empirical analysis run by Verhaegen et al. (2014) returns no statistical significance for the relationship between structural funds and identity. An explanation for that is offered by Capello and Perucca (2017), who show that only when the targets of the policy match the individuals' (perceived) needs does the impact of Cohesion Policy on the citizens' identity become positive and statistically significant. A precondition for this to happen is that citizens be aware of the policy. ESIF-funded actions include roads, railways, different types of infrastructures as well as training

programs for individuals. Yet, the visibility of Cohesion Policy is not to be taken for granted, as local political actors can deliberately hide the EU contribution for their own electoral purposes. The region's quality of institutions can thus play a role in this relationship, by increasing the levels of transparency and limiting space for opportunistic and corrupted behaviours in the usage of EU funds.

This type of behaviours can undermine citizens' trust toward institutions, which is the crucial factor for developing European identity according to the institutionalist approach. Hooghe and Verhaegen (2017) empirically shows that trust towards institutions has a stronger relationship with European identity than trust towards other Europeans (the society-based approach), a result which seems to put additional emphasis on the effectiveness and the visibility of the EU institutions and the way they are perceived by citizens.

Within the single utilitarian theoretical framework, multiple mechanisms can thus be distinguished which can contribute to the development of a pro- or anti-EU attitude as operationalized in terms of support and identification. The hypotheses that the empirical analysis carried out in the next section of the paper is going to test are then summarized as follows:

- Hp 1 – *the sociotropic view*: Support for the integration of the EU and European identity are influenced by the regional context in which citizens reside; however, objective measures of the region's economy (Hp 1a) exert a weaker impact on individuals' attitudes than people's perceptions of it (Hp 1b);
- Hp 2 – *the egocentric view*: Support and identity are influenced by the individuals' position within such a context and by their personal experiences with the effects of EU integration; again, this relationship is driven more by the benefits that individuals perceive to get from EU membership (Hp 2b) rather than by the practical advantages of living in the EU (Hp 2a);
- Hp 3 – *the Cohesion Policy effect*: Cohesion Policy transfers have a positive impact on support for EU integration and on European identity.

While testing these hypotheses, the paper will also account for alternative mechanisms for the development of identity, namely awareness, attachment and evaluation as they are explained by the sociological perspective. Consequently, we expect individuals who are more informed about the EU, more prone to get involved in its political events and more appreciative

of the way it works to be more supportive of the EU integration and to feel a higher sense of identity.

In the next section, a description of the data and the methodology used to assess these hypotheses is provided.

Section 3. Data and methodology

3.1 Sources of data

The data used to examine the explanatory power of our hypotheses come from different sources: the PERCEIVE¹ Survey, EUROSTAT, a novel dataset on EU funding provided by the European Commission's Directorate-General for Regional and Urban Policy (DG Regio).

The PERCEIVE survey collects information from a sample of 17,147 individuals of 18 years of age or older from 15 EU member states. Its design and results are described in Bauhr and Charron (2018). The survey includes 35 questions regarding different aspects, focusing on: i) the respondents' awareness of EU Regional Policy; ii) their identification with Europe, country, region, and European values; iii) their political attitudes and values. In addition, the survey includes questions aimed at measuring the respondents' support for Cohesion Policy, as well as their demographic and socio-economic characteristics. Table 1 shows the composition of the sample by country.

The regional aggregation in the survey is at NUTS 2 level for all of the countries, with the exception of Germany, UK, Sweden (level of aggregation at NUTS 1), Latvia and Estonia (NUTS 0, the whole country). The survey provides both the dependent variables of the analysis (support for European integration and identification with Europe), as well as some variables used to proxy a number of their determinants: the respondents' socio-economic status, their awareness of Cohesion Policy, the evaluation on the effectiveness of European Union at dealing with the biggest problem in their region and the opinion on the economic situation of their regions.

Data on the regional economic context are extracted from Eurostat: the GDP growth rate between 2013 and 2016 and the unemployment rate in 2017.

¹ H2020 – Reflective Society 2015 – PERCEIVE: Perception and Evaluation of Regional and Cohesion policies by Europeans and Identification with the Values of Europe. Grant agreement nr. 693529.

Table 1. Sample composition: number of respondents, their percentage distribution, and number of regions by country

Country	Number of Respondents	Percentage distribution	Number of regions
<i>France</i>	1,500	8.75	22
<i>Bulgaria</i>	503	2.93	6
<i>Slovakia</i>	1,014	5.91	4
<i>Hungary</i>	1,000	5.83	7
<i>Romania</i>	1,015	5.92	8
<i>Italy</i>	2,000	11.66	17
<i>Netherlands</i>	500	2.92	14
<i>Sweden</i>	580	3.38	3
<i>UK</i>	1,500	8.75	12
<i>Latvija</i>	500	2.92	1
<i>Poland</i>	2,000	11.66	16
<i>Spain</i>	2,014	11.75	17
<i>Germany</i>	1,500	8.75	16
<i>Estonia</i>	521	3.04	1
<i>Austria</i>	1,000	5.83	9
Total	17,147	100	153

The data on EU funding come from a new dataset: “Historic EU payments - regionalised and modelled” (EU Commission, 2018) is a novel source of annual EU expenditure (in current prices), broken down by regions (NUTS 2) and EU funds: ERDF, Cohesion Fund, EAFRD/EAGGF and ESF. This dataset provides the most complete historic picture available to date on the annual EU payments made under different shared management funds mapped to or estimated by NUTS 2 regions. The dataset covers the period from 1989 to 2013. Here we consider the 2007-2013 programming period, as this was the first for which we have data for all countries and for all years.

3.2 Data operationalization and model

As a measure of support for EU integration we use the responses to the question: “In general, do you think that (YOUR COUNTRY’S) EU membership is: a good thing (1), a bad thing (2), neither good nor bad (3), not sure (4)”, widely used in literature to measure support for EU integration. We recoded this variable into a dummy variable where 1 is attributed to whom think that its country’s EU membership is a good thing, and 0 is attributed to all other cases.

In order to measure European identity, many authors (Fligstein et al., 2012; Roose, 2013) make use of the Moreno question in the Eurobarometer: “In the near future, do you see yourself as (1) European only, (2) European and [nationality], (3) [nationality] and European, or (4) [nationality] only”. The Eurobarometer proxies European identity by asking about the support to European integration or about the feeling to be European (Scheuer and Schmitt, 2009, Verhaegen et al., 2014). According to Hobolt and de Vries (2016), an advantage of Eurobarometer data is that it allows to study the identification with Europe both over time and across countries. However, several other works have used specific surveys to analyse particular aspects: self-esteem scale applied to European feelings (Agirdag et al., 2012), feeling European in one's day-to-day life and attachment to the EU (Hooghe and Verhaegen, 2017). In this paper we use the responses to the PERCEIVE survey question: “People may feel different degrees of identity with their region, their country, or with Europe on whole. On a 0-10 scale, with ‘0’ being ‘I don’t identify at all, and ‘10’ being ‘I identify very strongly’, how strongly you identify yourself with Europe?”.

As stated in Hp 1 and Hp 2, we expect support and identification to be related with a number of both objective/subjective regional/individual benefits, that are included in the empirical analysis as follows.

The objective sociotropic perspective is accounted for with the inclusion of regional indicators such as the GDP growth rate (2013-2016), the unemployment rate (2017) and quality of institutions. The time of accession to the EU and a dummy variable for the Euro currency are included as control variables, too. Objective egocentric indicators, on the other hand, are taken from the PERCEIVE survey, and include the household income, the occupational status, the educational level and the years lived in the region (Table A1 in the Appendix). To our knowledge, this is the first time that the numbers of years lived in the region is tested as a factor mediating the support to and the identification with the EU. We expect that as the years spent in the same region decrease, support and identification increase, on the grounds that people who have been living in the same region for a shorter time might have higher mobility propensity. This implies that they should be more willing to exploit the opportunities created by the common market, and they should thus be more in favour of the free movement of good and persons that comes with EU integration.

As objective sociotropic indicators that we can relate to the Cohesion Policy effect (Hp 3) we use the net contribution of the member states to the EU budget and the total Structural Funds per capita paid by the EU. We took the net contribution in 2016 because is the most recent year before the PERCEIVE survey. We also coded the total EU payments per capita into

spending categories. Using the data on the financial cumulative allocations in 2014, broken down by the 86 priority themes provided by the DG Regio², for each region we have calculated the percentage of financial allocation of each priority theme. In a second step we have applied this percentage to the real data on EU payments, in order to estimate the real EU payments by priority themes. Finally, we coded the total EU payments per capita into six spending categories: unemployment, environmental concerns, poor education, corruption and poor governance, poor wages and poverty and poor infrastructures (Table A3 in the Appendix). This categorization allowed the expenditures to be matched with the PERCEIVE survey question about the regional problems perceived by the respondents, in order to understand if the role of Cohesion Policy in enhancing support and identity is conditioned on the expenditure being in line with the individuals' specific economic needs. We expect that some categories of expenditure will have more impact than others in influencing support for EU integration and in identification with Europe.

The subjective sociotropic and egocentric perspectives are accounted for through the PERCEIVE survey questions: "Compared with (5 years ago), do you think the economy in your region is: Better, About the same, Worse", and "To your knowledge, have you ever benefited in your daily life from any project funded by the EU?", respectively. Clearly the latter involves two distinct aspects, as the perception over the benefits of EU policies implies the respondent to be aware about the existence of EU funded projects.

The alternative explanations for citizens' support for European integration and identification with Europe are controlled for through the following variables built from the PERCEIVE survey. For the awareness theory we use the question: "Have you ever heard about the following EU policies? (EU Cohesion Policy; EU Regional Policy; EU Structural Funds; any EU funded project in your region or area)", codified as a dummy variable equal to 0 if the respondent knows at least one EU policy and equal to 1 if none is known, so in this case the expected sign of the relationship is negative, as more aware citizens are expected to be more supportive and to have stronger identity. For the attachment theory we use the variable "Vote in EU parliamentary elections", where we expect a positive relationship between the number of times the respondent has voted for the elections of the European Parliament and both support and identification. For the evaluation theory we use the question: "How effective do you think the EU will be at dealing with the biggest problem in your region?", where support and identification are expected to positively relate with perceptions of EU effectiveness. Finally,

² http://ec.europa.eu/regional_policy/sources/docgener/evaluation/pdf/expost2013/wp13_2_db_nuts3_ae.xlsx

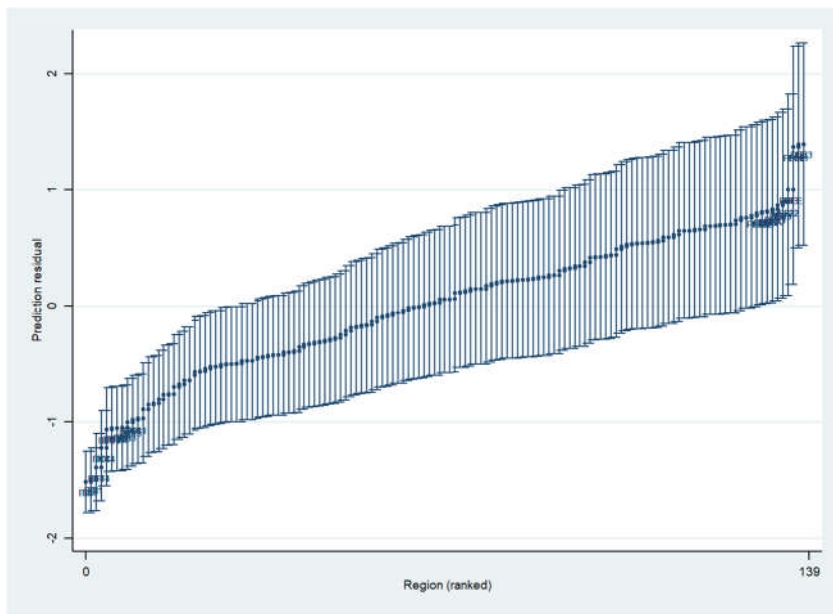
age and gender are included as individual control variables, as we expect male and younger respondents to show higher support for European integration and higher identification (Fligstein, 2008).

The territorial level of the analysis is as close as possible to that of citizens. Therefore, we use a multilevel analysis where individuals represent the first level of analysis and the regions (NUTS 0 and NUTS 1 for countries where NUTS 2 are not available) the second level. Two different specifications are adopted: with respect to support for EU integration, we employ a two-level logistic regression model with random intercept at regional level, where the dependent variable is a binary variable where 1 indicates individuals who support Europe and the European project and 0 indicates those who do not support it. With respect to European identity, we use a linear approximation for the dependent variable (measured on a scale ranging from 0 to 10) and a multiple linear regression model. In order to account for the correlation among individuals' responses in the same region, we use a linear random intercept model with covariates, that is a regression model with a regional specific intercept. The model is estimated via the Maximum Likelihood method.

Section 4. Results of the empirical analysis

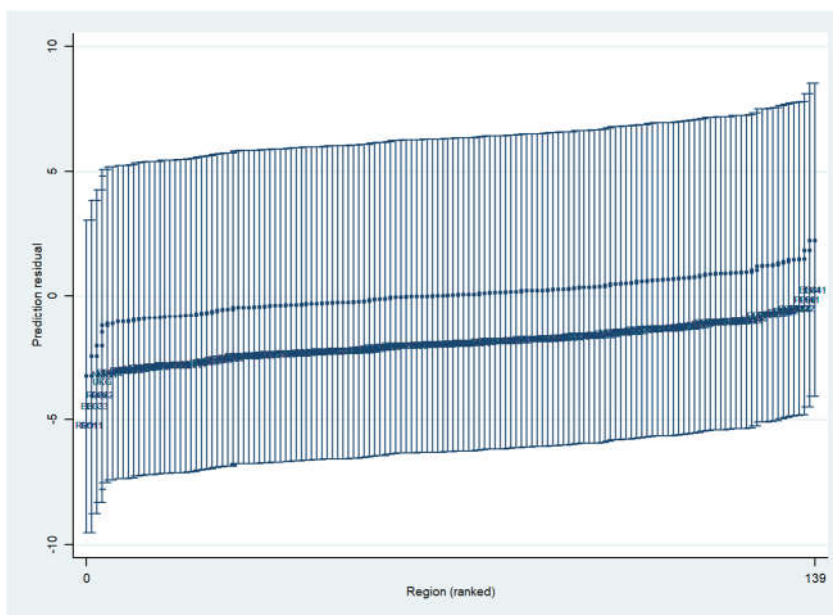
We start our analysis by showing some descriptive analysis of the dependent variables at regional and country level. Figure 1 shows how the level of support for EU integration is differently distributed among the European regions. Since the survey took place one year after the Brexit referendum, the question “in general, do you think that (YOUR COUNTRY’S) EU membership is: a good thing (1), a bad thing (2), neither good nor bad (3), not sure (4)” was not addressed to respondents in the United Kingdom, which implies that the UK is excluded from the analysis over support to EU integration. The ten European regions with the lowest levels of support for EU integration are all located in Italy. On the contrary, the ten European regions with the highest level of support for EU integration are from Germany (NUTS 1) and Poland. Figure 2 shows the levels of identification with Europe. Compared to support, the picture of regions' identification is less clear, as no strong national patterns can be detected within either high-ranked or low-ranked regions: the latter are located in Romania, Bulgaria, Italy and France, while the former are from Poland, Slovakia and Bulgaria.

Figure 1. Mean level of support for European integration (regional level)



Source: Bauhr and Charron (2018)

Figure 2. Mean level of identification with Europe (regional level)

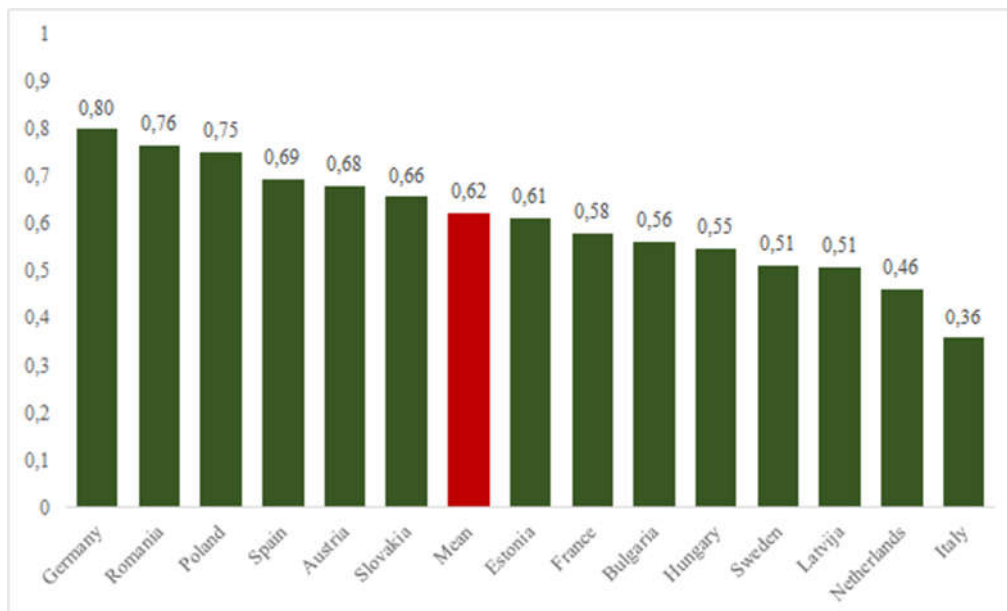


Source: Bauhr and Charron (2018)

From a country perspective (Figure 3 and Figure 4), it can be noted that Eastern countries Slovakia and Poland have the highest levels of identification, while Italy and the Netherlands, whose citizens are also the least supportive of EU integration of the whole sample, show lower levels of identification than the United Kingdom. Germany and Poland show both

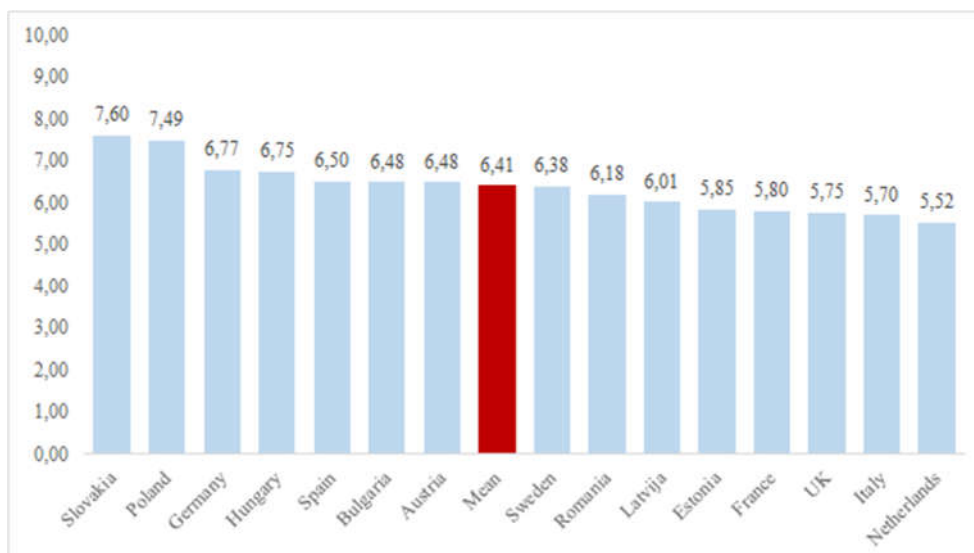
high levels of support for European integration and high levels of identification with Europe. However, these are the only similarities, and the lack of additional correspondence between the two pictures can be seen as a sign of the conceptual differences between support and identification.

Figure 3. Support for European integration (0-1)



Source: Bauhr and Charron (2018)

Figure 4. Identification with Europe (0-10)



Source: Bauhr and Charron (2018)

4.1 Support

The results of the two-level logistic regression model used to test support for EU integration are provided in Table 2 (no support for EU integration is taken as the reference category).

The intraclass correlation of Model I, which includes no covariates, supports the choice to employ a multilevel regional model, as it shows that 11% of the difference in the individuals' support to European integration is located at regional level. With the inclusion of a number of individual and regional control variables (Table 2, Model II), the intraclass correlation decreases to almost 6%.

All the control variables included in Model II are significant. Newest Member States of the European Union are more likely to support European integration than respondents from the original six Member States, and support is higher in countries whose accession is more recent, as shown by the coefficients for the 1973-1995 and 2004-2007 dummy variables.

The GDP growth rate is positively linked to the support. Membership of the Eurozone and regional unemployment show the expected signs, too, positive and negative respectively. Finally, among regional control variables, also the perceived level of institutional quality at the regional level (EQI), as expected, is positively linked to support for the EU.

With the addition of the variables linked to the utilitarian theory (Table 2, Model III), the intraclass correlation decreases to slightly above 3%. Corroborating previous works in this field, the level of education and the type of employment are both strong predictors of the individuals' level of support. Students tend to be supportive of the European project while unemployed people do not, and support grows as the level of education increases. The fewer the years an individual has lived in the same region (Years in the area), the higher the support for Europe is. This result supports the idea that those who were able to profit from the opportunities of the single market and the free movement of people are more supportive of the EU project, and the view that personal experiences are relevant in the individuals' assessment about the EU. This is also confirmed by the answers concerning the awareness of having benefited or not from an EU project ("Benefited from EU project" in Table 2): those who believe to have never benefited from an EU project or do not know if they have, show less EU support than those who believe or know they have. Finally, as expected, support is higher for individuals with higher levels of income.

If all the individual level variables of the utilitarian theory show the expected sign and statistical significance, the picture is different with respect to the regional level indicators and

to the Cohesion Policy effect. The amount of Structural Funds per capita allocated in the regions is not significant, while the region's membership in a net contributing State of the EU is significant but not relevant, in magnitude, in determining support to the EU project. On the one hand, the non-significance of the Structural Funds per capita allocation emphasizes the greater importance of subjective and individual indicators in determining the support for the EU; on the other, these findings are in line with the controversial findings summarized in Section 2.

The perception of the economic trend of the region over the last 5 years, instead, is particularly relevant and of the expected sign. This result, combined with the coefficients of the indicators at individual level, show that perceptions of the personal and regional situation are important determinants of the individuals' support to EU integration.

With the addition of the individual indicators related to alternative theories (Table 2, Model IV), these predictors remain significant, showing that the utilitarian hypothesis is robust to accounting for other mechanisms in determining individuals' support to EU integration. The negative sign of the "knowledge" variable states that the relationship between knowledge of cohesion policy and support is positive, while the positive signs of the other variables supports the "attachment" theory: those who voted both times in the last two elections of the European Parliament show greater support to the EU, like those who judge the effectiveness of the EU in solving the main problems perceived by the population at regional level.

4.2 Identification

The same theoretical framework has also been applied to the phenomenon of identification with Europe. The results of the analyses (Table 3) are very similar to what has already been seen for the support (Table 2). The main differences lie in the greater level of identification for women than for men, in the non-significance of the growth rate of GDP (which is significant only in specification IV and with the opposite expected sign) and in the non-significance of institutional quality at regional level (EQI). As seen for support, the access period to the EU is significant also for the development of identity: the countries that joined between 1973 and 1995 show a higher level of identification than the founding countries of the EU and, in Model II, the countries with the most recent access show a highest level of identification. These results are partially consistent with the findings by Verhaegen et al. (2014, p. 308): *"Against our expectations, we find that respondents tend to have a stronger European identity in member states that have been part of the EU for a shorter period. This contradicts the claim of Thomas Risse (2010) that time matters for European identity. The reason for this*

different finding might be that we control for economic differences and benefits, a step that Risse does not take. Therefore, it might be the specific economic situation in the newest member states that causes lower levels of European identity, while the recent accession in itself might stimulate a sense of European identity.” Our results are strongly in favour of both higher identification and support in newest member states, a potential additional explanation for this being that these countries were able to benefit from higher flow of Structural Funds to react against the economic crisis.

The indicators related to the utilitarian theory behave similarly to the specification with support as dependent variable. A major difference lies in the significant and positive sign of the amount of the Structural Funds per capita, even if the intensity of their contribution in explaining the phenomenon is very low. Even in this analysis, the utilitarian theory remains valid after the inclusion of regional and individual indicators related to alternative theories for the development of identity.

For both our dependent variables, support and identification, we can state that the utilitarian theory is valid in explaining the two phenomena, but there is a substantial difference between objective and subjective variables. In fact, the levels of support for the European project and the degree of identification with Europe seem to be determined, to a greater extent, by the latter. It is in fact the awareness of having benefitted in first person from EU-funded projects and the perception of recent improvements in the regional economic situation that explain much of the individuals' levels of support and identification.

The non-significance of the amount of the Structural Funds per capita with respect to support, and the significance, but with a very low magnitude, with respect to identification, deserve further investigation. Some authors (Chalmers and Dellmuth, 2015, 2018) argue that it is not the amount of the Structural Funds that influences the support, but it is rather the type of destination of the expenditure, so that what matters would be the quality and not the quantity of the expenditure. This seems to be reflected in the importance, in both our analyses, of the variable related to the perceived effectiveness of the EU in solving the main problems of the region. In fact, in Hp 3 – *The Cohesion Policy effect* we hypothesized that support and identification are positively linked to a good use of the Structural Funds in solving regional problems. We also expect that some areas of intervention, those more visible to citizens such as infrastructures, and those that most directly involve citizens such as measures to combat unemployment and poverty and those related to education, have higher impact on the support for the EU and in the level of identification. In the next section, therefore, we repeat the

previous analyses by adding a breakdown of the amount of Structural Funds in six macro areas of intervention.

Table 2. Two-level logistic regression for support for European integration

Support for EU integration				
	Model I	Model II	Model III	Model IV
Intercept	0.4936***	-1.7659***	-1.9589***	-1.3062***
Individual level controls				
Age		0.0059***	0.0154***	0.0117***
Female		-0.1523***	-0.0597	-0.0620
Regional level controls				
GDP growth		0.0407***	0.0346***	0.0217***
Accession (ref. 1957)				
1973-1995		0.5591***	1.2497***	1.1661***
2004-2007		0.7944***	1.5115***	1.2732***
Unemployment		-0.0227*	-0.0038	-0.0172*
EQI		0.0139***	0.0031	0.0062*
Eurozone		0.9110***	1.1005***	1.0668***
Individual level Indicators (Utilitarian Theory)				
Occupation (ref. Employed)				
Unemployed			-0.3020***	-0.2500***
Housewife			-0.1058	-0.0859
Retired			-0.0014	0.0005
Student			0.4384***	0.4661***
Other			0.0599	0.0369
Education (ref. Elementary school)				
High school			0.3571***	0.3094***
Post-graduate			0.8545***	0.7738***
Years in the area			-0.0038**	-0.0042***
Household income (ref. Low)				
Medium			0.1194*	0.1053
High			0.3751***	0.3705***
Don't know			0.5355***	0.6117***
Benefited from EU project (ref. Yes)				
No			-0.6398***	-0.5364***
Don't Know			-0.2643**	-0.2053
Regional level Indicators (Utilitarian Theory)				
Structural Funds per capita			-0.0001	0.0001
Net Contribution			0.0001***	0.0001***
Perceived Regional Economy (compared with 5 years ago) (ref. Better)				
About the same			-0.4834***	-0.4247***
Worse			-0.9672***	-0.8668***
Individual level indicators (Others explanations)				
Knowledge				-0.2931***
Voted in EU parliamentary elections?(ref. Neither)				
1				0.2821***
2				0.5094***
Effectiveness (ref. Very effective)				
Somewhat effective				-0.4082***
Not so effective				-1.0705***
Statistics				
Variance (level 2)	0.4191***	0.1976***	0.1160***	0.1050***
N	15625	15521	15436	15087
ll	-9872.1417	-9746.1843	-9132.3201	-8618.2592
ICC	0.1130	0.0567	0.0340	0.0309
chi2		215.3928	1099.4462	1542.3316
p		0.0000	0.0000	0.0000
aic	19748.2833	19512.3686	18318.6403	17300.5184
bic	19763.5966	19588.8680	18525.0406	17544.4092

legend: * p<.1; **p<.05; *** p<.01

Table 3. Mixed effect model with random effect at regional level for identification with Europe

Identification with Europe	Model I	Model II	Model III	Model IV
Intercept	6.2908***	4.7749***	5.4124***	6.3844***
Individual level controls				
Age		0.0071***	0.0162***	0.0109***
Female		0.1046*	0.2047***	0.2208***
Regional level controls				
GDP growth		-0.0152	-0.0204	-0.0368*
Accession (ref. 1957)				
1973-1995		0.6716***	0.8364***	0.7542***
2004-2007		1.1942***	0.1002	-0.2249
Unemployment		-0.0086	-0.0338	-0.0521**
EQI		0.0059	-0.0093	-0.0073
Eurozone		0.5829**	0.7437***	0.6190**
Individual level Indicators (Utilitarian Theory)				
Occupation (ref. Employed)				
Unemployed			-0.2212*	-0.1692
Housewife			-0.0106	-0.0317
Retired			0.1302	0.1312
Student			0.5253***	0.5632***
Other			-0.1652	-0.1189
Education (ref. Elementary school)				
High school			0.4158***	0.3425***
Post-graduate			1.0853***	0.9049***
Years in the area			-0.0064***	-0.0065***
Household income (ref. Low)				
Medium			0.1308	0.1025
High			0.4146***	0.3689***
Don't know			0.1169	0.1260
Benefited from EU project (ref. Yes)				
No			-0.7440***	-0.5514***
Don't Know			-0.4460***	-0.2931**
Regional level Indicators (Utilitarian Theory)				
Structural Funds per capita			0.0006***	0.0008***
Net Contribution			0.0000*	0.0000**
Perceived Regional Economy (compared with 5 years ago) (ref. Better)				
About the same			-0.3879***	-0.2976***
Worse			-0.7585***	-0.6001***
Individual level indicators (Others explanations)				
Knowledge				-0.3158***
Voted in EU parliamentary elections?(ref. Neither)				
1				0.3083***
2				0.6258***
Effectiveness (ref. Very effective)				
Somewhat effective				-0.4945***
Not so effective				-1.3999***
Statistics				
N	17125	16988	16900	16546
ll	-41503.6965	-41179.8065	-40556.2694	-39259.5586
ICC	0.0833	0.0627	0.0480	0.0587
chi2		61.3332	935.5974	1294.4856
p		0.0000	0.0000	0.0000
aic	83013.3930	82381.6129	81168.5389	78585.1172
bic	83036.6378	82466.7558	81385.1208	78839.6759

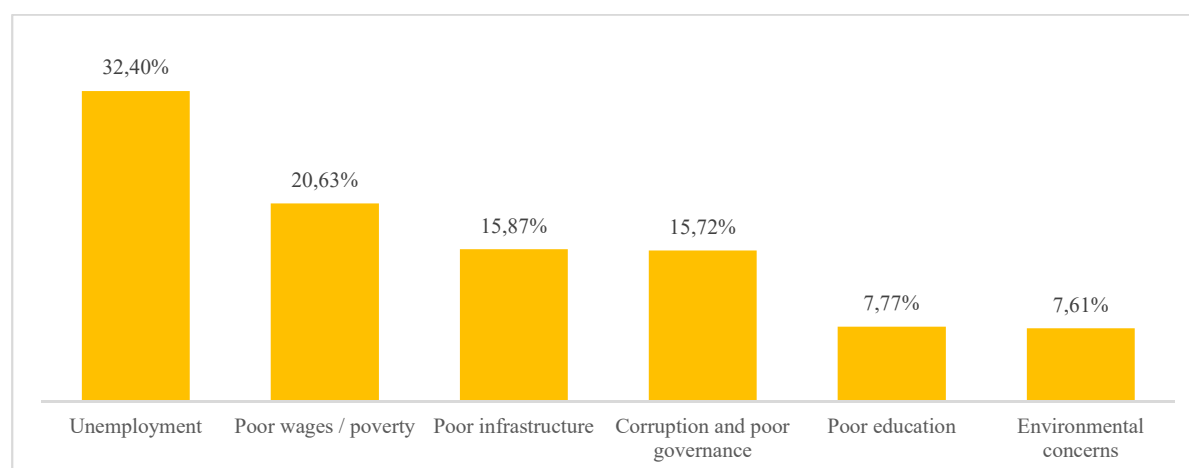
legend: * p<.1; **p<.05; *** p<.01

4.3 The Cohesion Policy effect

The models for support and identification (Model III, Table 2 and Table 3) will be presented again by detailing the allocation of the Structural Funds per capita in six macro areas of intervention: unemployment, environmental concerns, poor education, corruption and poor governance, poor wages and poverty, infrastructures (see Table A3). Contrary to the expectations, with respect to support only the allocations for education and poverty are significant, and the sign of their coefficients is negative, while for identification, expenditures on environment, governance, unemployment and infrastructure are significant and of the expected sign (see Table A4 and Table A5 in the Appendix). What emerges is thus that there seems to be no clarity in the relationship between the distribution of expenditure under the Structural Funds and the support for the European project and the European identity, and that the latter seem thus to be driven only by the individuals' perceptions over the situation of their region.

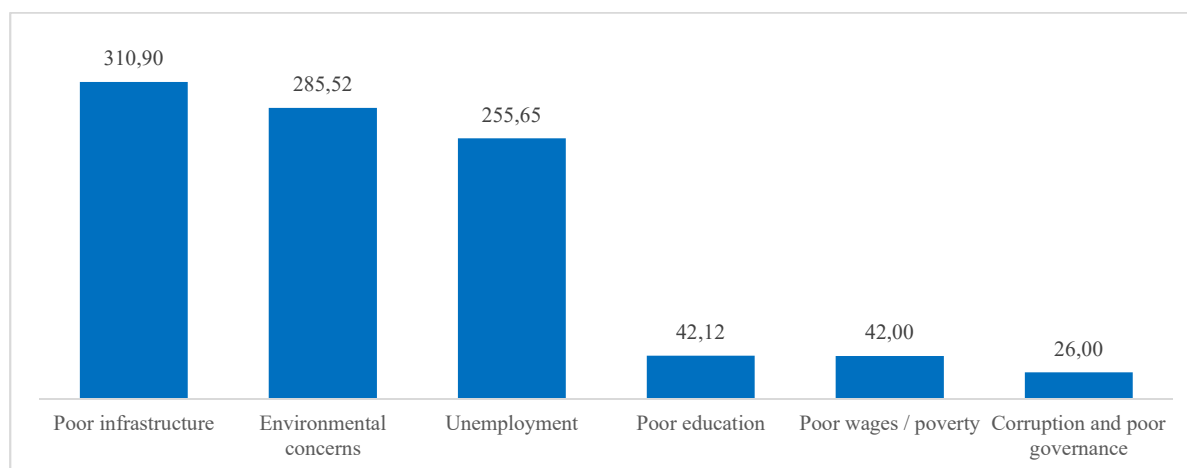
The negative sign of the only significant coefficient may suggest that regardless of the amount, the use of the Structural Funds has not met the needs that citizens have identified as priorities in their regions. If we look at the distribution of the problems as they are perceived by the survey respondents and the amount per capita in euros of the Structural Funds in the period 2007-2013, it is evident that there is a mismatch between the policy targets and the major issues perceived by local population (Figure 5 and Figure 6).

Figure 5. Main regional problems perceived by the European citizens



Source: Bauhr and Charron (2018)

Figure 6. Structural Funds (mean) in 2007-2013 programming period by themes (Euro per capita)



Source: European Commission, 2018

A promising line of future research would thus consist of considering the amount of the Structural Funds considering both the specific objective needs of the region and as they are perceived by the population. This would allow to expand the results of these analyses and to assess size and nature of the prevalence of perception over objectivity in the development of personal attitudes towards the EU.

Section 5. Concluding remarks

This paper aims to systematize and empirically test the mechanisms for the development of individuals' support for the EU integration and EU identity as they have been advanced by the utilitarian theory. It does so by taking advantage of two novel sources of data and by using a regional approach that has yet to be proposed in this field of literature. Along with the sociotropic and the egocentric explanations, the paper investigated on a possible Cohesion Policy effect for which Cohesion Policy might contribute to foster support to and identification with the European Union among beneficiary populations.

Citizens from new Member States, which have a positive budgetary balance with the EU and whose regions are among the first beneficiaries of Cohesion Policy (see Figure A3 in the Appendix), do actually display higher support and identification, but this does not seem to relate with the quantity nor with the quality of the Structural Funds expenditure, although further and more detailed analysis seems to be required. According to our empirical analysis, attitudes towards the EU are determined by the regional economic context, by individual factors

such as education, income and mobility experiences, and, to a higher extent, by individuals' perceptions over the situation of their region's economy and effectiveness of EU institutions in solving the region's problems.

With respect to the Hypotheses explicated in Section 2, results thus speak of a prevalence of Hp 2 – the egocentric view over Hp 1 – the sociotropic view, and highlight a clear predominance of perception (Hp b) over objectivity (Hp a), in the development of both support and identity. This calls for additional emphasis and investigation over the role of communication and the construction of the public discourse over public affairs, by the media and by the institutions themselves.

As far as Hp 3 is concerned, our analysis does not support the existence of a Cohesion Policy effect per se, but it provides useful indications for further research on a twofold path. Firstly, our models suggest that there may be a relationship between ESIF expenditure and perceived regional needs, insofar as the mismatch between the two has a detrimental effect on both support and identity. Secondly, knowledge of Cohesion Policy is positively related to both support and identity, and so is the awareness of being a beneficiary of an EU-funded project. These results again point to communication activities: if the EU really wants Cohesion Policy to be a vehicle of European values across its territories and its communities, it must step up its communication effort to let citizens be more informed and aware of this policy. At the same time, European and local authorities must cooperate in order to enhance Cohesion Policy's effectiveness in solving regional problems, which on turn calls for higher flexibility in the design and in the implementation of the Operational Programmes. If citizens' attitudes are driven by the perceptions over the situation of their region and their position in a globalized world, it is time to let the EU listen carefully to its citizens and deliver people-based as well place-based policies.

References

- Agirdag, O., Huyst, P., & Houtte, M. V. (2012). Determinants of the Formation of a European Identity among Children: Individual- and School-Level Influences. *JCMS: Journal of Common Market Studies*, 50(2), 198–213. <https://doi.org/10.1111/j.1468-5965.2011.02205.x>
- Anderson, C. J., & Reichert, M. S. (1995). Economic Benefits and Support for Membership in the E.U.: A Cross-National Analysis*. *Journal of Public Policy*, 15(3), 231–249. <https://doi.org/10.1017/S0143814X00010035>
- Barca, F. (2009). *Agenda for a Reformed Cohesion Policy*. Retrieved from http://ec.europa.eu/regional_policy/archive/policy/future/pdf/report_barca_v0306.pdf
- Bauhr, M., & Charron, N. (2018). *What Do Citizens Think About Redistribution and Aid Within the EU? Description and Highlights of a Pan-European Citizen Survey on Public Support for Cohesion Policy* (QoG Working Paper Series No. 2) (p. 47). Gothenburg: Quality of Government Institute. Retrieved from https://qog.pol.gu.se/digitalAssets/1680/1680300_2018_2_bauhr_charron.pdf
- Bergbauer, S. (2018). *Explaining European Identity Formation*. Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-319-67708-8>
- Brinegar, A. P., & Jolly, S. K. (2005). Location, Location, Location: National Contextual Factors and Public Support for European Integration. *European Union Politics*, 6(2), 155–180. <https://doi.org/10.1177/1465116505051981>
- Capello, R., & Perucca, G. (2017). *Cohesion policy perceptions of EU citizens. The role of context conditions* (Research paper) (p. 18). Politecnico di Milano. Retrieved from <http://www.cohesify.eu/wp-content/uploads/2017/04/POLIMI-WO2-Output-2.3.pdf#zoom=100>

- Chalmers, A. W., & Dellmuth, L. M. (2015). Fiscal redistribution and public support for European integration. *European Union Politics*, 16(3), 386–407.
<https://doi.org/10.1177/14651165155581201>
- Cram, L. (2012). Does the EU Need a Navel? Implicit and Explicit Identification with the European Union*. *JCMS: Journal of Common Market Studies*, 50(1), 71–86.
<https://doi.org/10.1111/j.1468-5965.2011.02207.x>
- David, O., & Bar-Tal, D. (2009). A Sociopsychological Conception of Collective Identity: The Case of National Identity as an Example. *Personality and Social Psychology Review*, 13(4), 354–379. <https://doi.org/10.1177/1088868309344412>
- Dellmuth, L. M., & Chalmers, A. W. (2018). All spending is not equal: European Union public spending, policy feedback and citizens' support for the EU. *European Journal of Political Research*, 57(1), 3–23. <https://doi.org/10.1111/1475-6765.12215>
- Díez Medrano, J. (2003). *Framing Europe: Attitudes to European Integration in Germany, Spain, and the United Kingdom*. Princeton University Press.
- Duch, R., & Taylor, M. (1997). Economics and the Vulnerability of the Pan-European Institutions. *Political Behavior*, 19(1), 65–80.
- Easton, D. (1965). *A systems analysis of political life*. Wiley. Retrieved from <https://books.google.it/books?id=AvsMAQAAMAAJ>
- Eichenberg, R. C., & Dalton, R. J. (1993). Europeans and the European Community: The Dynamics of Public Support for European Integration. *International Organization*, 47(4), 507–534.
- European Commission (2018). Historic EU payments by MS & NUTS-2 region (Filters by country, period and fund). Available at: <https://cohesiondata.ec.europa.eu/EU-Level/Historic-EU-payments-by-MS-NUTS-2-region-Filters-b/2qa4-zm5t>

- Fligstein, N. (2008). *Euroclash: the EU, European identity, and the future of Europe*. Oxford; New York: Oxford University Press. Retrieved from <http://public.eblib.com/choice/publicfullrecord.aspx?p=415282>
- Fligstein, N., Polyakova, A., & Sandholtz, W. (2012). European Integration, Nationalism and European Identity. *JCMS: Journal of Common Market Studies*, 50(s1), 106–122. <https://doi.org/10.1111/j.1468-5965.2011.02230.x>
- Gabel, M. (1998). Public Support for European Integration: An Empirical Test of Five Theories. *The Journal of Politics*, 60(2), 333–354. <https://doi.org/10.2307/2647912>
- Gabel, M., & Palmer, H. D. (1995). Understanding variation in public support for European integration. *European Journal of Political Research*, 27(1), 3–19. <https://doi.org/10.1111/j.1475-6765.1995.tb00627.x>
- Gabel, M., & Whitten, G. D. (1997). Economic Conditions, Economic Perceptions, and Public Support for European Integration. *Political Behavior*, 19(1), 81–96.
- Habermas, J. (2012). *The Crisis of the European Union: A Response*. Wiley. Retrieved from <https://books.google.it/books?id=w7yYbQYMDokC>
- Harteveld, E., Meer, T. van der, & Vries, C. E. D. (2013). In Europe we trust? Exploring three logics of trust in the European Union. *European Union Politics*, 14(4), 542–565. <https://doi.org/10.1177/1465116513491018>
- Hobolt, S. B., & de Vries, C. E. (2016). Public Support for European Integration. *Annual Review of Political Science*, 19(1), 413–432. <https://doi.org/10.1146/annurev-polisci-042214-044157>
- Hooghe, L., & Marks, G. (2005). Calculation, Community and Cues: Public Opinion on European Integration. *European Union Politics*, 6(4), 419–443. <https://doi.org/10.1177/1465116505057816>

- Hooghe, M., & Verhaegen, S. (2017). The effect of political trust and trust in European citizens on European identity. *European Political Science Review*, 9(2), 161–181.
<https://doi.org/10.1017/S1755773915000314>
- Jiménez, R., M, A., Górnjak, J. J., Kandulla, M., Kiss, P., & Kosic, A. (2004). *European and National Identities in the Eu's Old and New Member States: Ethnic, Civic, Instrumental and Symbolic Components* (SSRN Scholarly Paper No. ID 570601) (p. 37). Rochester, NY: Social Science Research Network. Retrieved from <https://papers.ssrn.com/abstract=570601>
- Kritzinger, S. (2005). European Identity Building from the Perspective of Efficiency. *Comparative European Politics*, 3(1), 50–75. <https://doi.org/10.1057/palgrave.cep.6110048>
- Levy, N., & Phan, B. (2014). The Utility of Identity: Explaining Support for the EU after the Crash. *Polity*, 46(4), 562–590. <https://doi.org/10.1057/pol.2014.19>
- Loveless, M., & Rohrschneider, R. (2011). Public perceptions of the EU as a system of governance. *Living Rev. Euro. Gov.*, 6. <https://doi.org/10.12942/lreg-2011-2>
- McLaren, L. M. (2004). Opposition to European integration and fear of loss of national identity: Debunking a basic assumption regarding hostility to the integration project. *European Journal of Political Research*, 43(6), 895–912. <https://doi.org/10.1111/j.0304-4130.2004.00179.x>
- Muštra, V., & Škrabić, B. (2014). Regional Inequalities in the European Union and the Role of Institutions. *Review of Urban & Regional Development Studies*, 26(1), 20–39.
<https://doi.org/10.1111/rurd.12017>
- Osterloh, S. (2011). *Can Regional Transfers Buy Public Support? Evidence from EU Structural Policy* (SSRN Scholarly Paper No. No 11-011). Rochester, NY: Social Science Research Network. Retrieved from <https://papers.ssrn.com/abstract=1763267>
- Risse, T. (2010). *A Community of Europeans?* Cornell University Press. Retrieved from <http://www.jstor.org/stable/10.7591/j.ctt7v8r0>

- Risse, T. (2014). No Demos? Identities and Public Spheres in the Euro Crisis. *JCMS: Journal of Common Market Studies*, 52(6), 1207–1215. <https://doi.org/10.1111/jcms.12189>
- Roose, J. (2013). How European is European Identification? Comparing Continental Identification in Europe and Beyond. *JCMS: Journal of Common Market Studies*, 51(2), 281–297. <https://doi.org/10.1111/jcms.12005>
- Scheuer, A., & Schmitt, H. (2009). Dynamics in European Political Identity. *Journal of European Integration*, 31(5), 551–568. <https://doi.org/10.1080/07036330903145856>
- Tajfel, H. (1981). *Human groups and social categories: studies in social psychology*. Cambridge [Cambridgeshire]; New York: Cambridge University Press.
- Vacas-Soriano, C., & Fernández-Macías, E. (2018). Income Inequality in the Great Recession from an EU-wide Perspective 1. *CESifo Forum; München*, 19(2), 9–18.
- Van Ingelgom, V. (2014). *Integrating Indifference: A Comparative, Qualitative and Quantitative Approach to the Legitimacy of European Integration*. Colchester: ECPR Press.
- Verhaegen, S., Hooghe, M., & Quintelier, E. (2014). European Identity and Support for European Integration: A Matter of Perceived Economic Benefits? *Kyklos*, 67(2), 295–314. <https://doi.org/10.1111/kykl.12055>
- WIIW (2016). The Consolidation of Financial Data 1989-2013 on payments to programmes, Available at: <https://publications.europa.eu/en/publication-detail/-/publication/31c556d1-e394-11e6-ad7c-01aa75ed71a1/language-en/format-PDF/source-68135194>

Appendix

Table A1. Description of indicators and variables

Variable	Description	Values
Control variables		
Age	Age in years	Continuous
Gender	Gender	0 Male
		1 Female
Accession	Year of access to the EU	-1957; -1973-1995; -2004-2007
Unemployment	Regional Unemployment rate in 2017	Numerical Values
EQI	European Quality of Government Index (Normalized)	Numerical Values (0-100)
Eurozone	Membership of the Country to the Eurozone	0 No
		1 Yes
Economic Indicators		
Objective - Egocentric		
Occupation	Occupational status	1 - Employee
		2 – Unemployed
		3 - Housewife
		4- Retired
		5- Students, trainee
		6 – Other
Education	Level of education	1 - Elementary - High school
		2 - High school - College
		3 -Post Graduate
Years in the area	Years lived in the region	Numerical value (years)
Household income	Net income per month (after taxes)	1 – Low
		2 - Medium
		3 – High
Perceived – Egocentric		
Benefits from EU policies	Q3. Have you ever benefited in your daily life from any project funded by the EU?	1 Yes
		2 No
		99 Don't Know/RF
Objective – Sociotropic		
Structural Funds per capita	Total EU payments in years 2007-13 divided by the average population in a region in the period 2007-13	Numerical value (euros)
Net Contribution	Net contribution of the Member States to EU Budget	Numerical value (euros)
Perceived – Sociotropic		
Perceived Regional Economy	Compared with (5 years ago), do you think the economy in your region is:	1 Better, 2 About the same, 3 Worse
Others Indicators		
Awareness of EU policies	Have you ever heard about the following EU policies? (EU Cohesion Policy; EU Regional Policy; EU Structural Funds; any EU funded project in your region or area)	0 Yes 1 No
Vote in EU parliamentary elections	Have you voted in either of the last two EU parliamentary elections?	0 Neither
		1 Once
		2 Both
Effectiveness of EU	How effective do you think the EU will be at dealing with the biggest problem in your region?	1 Not very effective
		2 Somewhat effective
		3 Very effective

Table A2. Summary statistics

Variable	Observation	Mean	Standard Deviation	Min	Max
Control variables					
Age	17009	49,51	17,00	18	97
Gender	17147	0,50	0,50	0	1
Accession	17147	0,30	0,46	0	1
Unemployment	17147	8,08	5,96	2,10	26
EQI	17147	48,20	17,42	1,11	78,96
Eurozone	17147	0,79	0,41	0	1
Economic Indicators					
<i>Objective - Egocentric</i>					
Occupation					
Unemployed	17147	0,06	0,24	0	1
Housewife	17147	0,04	0,20	0	1
Retired	17147	0,26	0,44	0	1
Students, trainee	17147	0,04	0,20	0	1
Other	17147	0,02	0,14	0	1
Education					
High school - College	17147	0,65	0,48	0	1
Post Graduate	17147	0,14	0,35	0	1
Years in the area	17147	35,94	20,04	0	97
Household income					
Medium	17147	0,29	0,45	0	1
High	17147	0,35	0,48	0	1
Don't Know	17147	0,07	0,26	0	1
<i>Perceived – Egocentric</i>					
Benefits from EU policies					
No	17147	0,65	0,48	0	1
Don't Know	17147	0,02	0,15	0	1
Objective – Sociotropic					
Structural Funds per capita	17147	962,19	874,19	36,99	3071,26
Net Contribution	17147	1245,51	5495,02	-6928,75	11194,68
<i>Perceived – Sociotropic</i>					
Perceived Regional Economy					
About the same	17147	0,43	0,50	0	1
Worse	17147	0,251181	0,43	0	1
<i>Others Indicators</i>					
Awareness of EU policies					
No	17147	0,65	0,48	0	1
Don't Know	17147	0,02	0,15	0	1
Vote in EU parliamentary elections					
Once	16778	0,17	0,37	0	1
Both	16778	0,51	0,50	0	1
Effectiveness of EU					
Somewhat effective	17147	0,36	0,48	0	1
Very effective	17147	0,53	0,50	0	1

Table A3. Code, themes and synthetic themes

Code	Themes	Synthetic themes
01	R&TD activities in research centres	Unemployment
02	R&TD infrastructure (<i>including physical plant, instrumentation and high-speed computer networks linking research centres</i>) and centres of competence in a specific technology	Unemployment
03	Technology transfer and improvement of cooperation networks between small businesses (SMEs), between these and other businesses and universities, post-secondary education establishments of all kinds, regional authorities, research centres and scientific and technological poles (<i>scientific and technological parks, technopoles, etc.</i>)	Unemployment
04	Assistance to R&TD, particularly in SMEs (<i>including access to R&TD services in research centres</i>)	Unemployment
05	Advanced support services for firms and groups of firms	Unemployment
06	Assistance to SMEs for the promotion of environmentally-friendly products and production processes (<i>introduction of effective environment managing system, adoption and use of pollution prevention technologies, integration of clean technologies into firm production</i>)	Unemployment
07	Investment in firms directly linked to research and innovation (<i>innovative technologies, establishment of new firms by universities, existing R&TD centres and firms, etc.</i>)	Unemployment
08	Other investment in firms	Unemployment
09	Other measures to stimulate research and innovation and entrepreneurship in SMEs	Unemployment
10	Telephone infrastructures (<i>including broadband networks</i>)	Poor infrastructure & transportation
11	Information and communication technologies (<i>access, security, interoperability, risk-prevention, research, innovation, e-content, etc.</i>)	Unemployment
12	Information and communication technologies (TEN-ICT)	Unemployment
13	Services and applications for the citizen (<i>e-health, e-government, e-learning, e-inclusion, etc.</i>)	Unemployment
14	Services and applications for SMEs (<i>e-commerce, education and training, networking, etc.</i>)	Unemployment
15	Other measures for improving access to and efficient use of ICT by SMEs	Unemployment
16	Railways	Poor infrastructure & transportation
17	Railways (TEN-T)	Poor infrastructure & transportation
18	Mobile rail assets	Poor infrastructure & transportation
19	Mobile rail assets (TEN-T)	Poor infrastructure & transportation
20	Motorways	Poor infrastructure & transportation
21	Motorways (TEN-T)	Poor infrastructure & transportation
22	National roads	Poor infrastructure & transportation
23	Regional/local roads	Poor infrastructure & transportation
24	Cycle tracks	Poor infrastructure & transportation
25	Urban transport	Poor infrastructure & transportation
26	Multimodal transport	Poor infrastructure & transportation
27	Multimodal transport (TEN-T)	Poor infrastructure & transportation
28	Intelligent transport systems	Poor infrastructure & transportation
29	Airports	Poor infrastructure & transportation
30	Ports	Poor infrastructure & transportation
31	Inland waterways (<i>regional and local</i>)	Poor infrastructure & transportation
32	Inland waterways (TEN-T)	Poor infrastructure & transportation
33	Electricity	Environmental concerns
34	Electricity (TEN-E)	Environmental concerns
35	Natural gas	Environmental concerns
36	Natural gas (TEN-E)	Environmental concerns
37	Petroleum products	Environmental concerns
38	Petroleum products (TEN-E)	Environmental concerns
39	Renewable energy: wind	Environmental concerns
40	Renewable energy: solar	Environmental concerns
41	Renewable energy: biomass	Environmental concerns
42	Renewable energy: hydroelectric, geothermal and other	Environmental concerns
43	Energy efficiency, co-generation, energy management	Environmental concerns
44	Management of household and industrial waste	Environmental concerns
45	Management and distribution of water (<i>drinking water</i>)	Environmental concerns
46	Water treatment (<i>waste water</i>)	Environmental concerns
47	Air quality	Environmental concerns
48	Integrated prevention and pollution control	Environmental concerns

49	Mitigation and adaptation to climate change	Environmental concerns
50	Rehabilitation of industrial sites and contaminated land	Environmental concerns
51	Promotion of biodiversity and nature protection (<i>including NATURA 2000</i>)	Environmental concerns
52	Promotion of clean urban transport	Environmental concerns
53	Risk prevention (<i>including the drafting and implementation of plans and measures to prevent and manage natural and technological risks</i>)	Environmental concerns
54	Other measures to preserve the environment and prevent risks	Environmental concerns
55	Promotion of natural assets	Environmental concerns
56	Protection and development of natural heritage	Environmental concerns
57	Other assistance to improve tourist services	Environmental concerns
58	Protection and preservation of the cultural heritage	Environmental concerns
59	Development of cultural infrastructure	Environmental concerns
60	Other assistance to improve cultural services	Environmental concerns
61	Integrated projects for urban and rural regeneration	Environmental concerns
62	Development of life-long learning systems and strategies in firms; training and services for employees to step up their adaptability to change; promoting entrepreneurship and innovation	Unemployment
63	Design and dissemination of innovative and more productive ways of organising work	Unemployment
64	Development of specific services for employment, training and support in connection with restructuring of sectors and firms, and development of systems for anticipating economic changes and future requirements in terms of jobs and skills	Unemployment
65	Modernisation and strengthening labour market institutions	Unemployment
66	Implementing active and preventive measures on the labour market	Unemployment
67	Measures encouraging active ageing and prolonging working lives	Unemployment
68	Support for self-employment and business start-up	Unemployment
69	Measures to improve access to employment and increase sustainable participation and progress of women in employment to reduce gender-based segregation in the labour market, and to reconcile work and private life, such as facilitating access to childcare and care for dependent persons	Unemployment
70	Specific action to increase migrants' participation in employment and thereby strengthen their social integration	Unemployment
71	Pathways to integration and re-entry into employment for disadvantaged people; combating discrimination in accessing and progressing in the labour market and promoting acceptance of diversity at the workplace	Unemployment
72	Design, introduction and implementation of reforms in education and training systems in order to develop employability, improving the labour market relevance of initial and vocational education and training, updating skills of training personnel with a view to innovation and a knowledge-based economy	Poor education
73	Measures to increase participation in education and training throughout the life-cycle, including through action to achieve a reduction in early school leaving, gender-based segregation of subjects and increased access to and quality of initial vocational and tertiary education and training	Poor education
74	Developing human potential in the field of research and innovation, in particular through post-graduate studies and training of researchers, and networking activities between universities, research centres and businesses	Poor education
75	Education infrastructure	Poor education
76	Health infrastructure	Poor wages / poverty
77	Childcare infrastructure	Poor wages / poverty
78	Housing infrastructure	Poor wages / poverty
79	Other social infrastructure	Poor wages / poverty
80	Promoting partnerships, pacts and initiatives through the networking of relevant stakeholders	Corruption and poor governance
81	Mechanisms for improving good policy and programme design, monitoring and evaluation at national, regional and local level, capacity building in the delivery of policies and programmes.	Corruption and poor governance
82	Compensation of any additional costs due to accessibility deficit and territorial fragmentation	Corruption and poor governance
83	Specific action addressed to compensate additional costs due to size market factors	Corruption and poor governance
84	Support to compensate additional costs due to climate conditions and relief difficulties	Corruption and poor governance
85	Preparation, implementation, monitoring and inspection	Corruption and poor governance
86	Evaluation and studies; information and communication	Corruption and poor governance

Table A4. Two-level logistic regression for support for European integration, structural Funds by themes

Support for EU integration, Structural Funds by themes						
	Unemployment	Environmental concerns	Poor Education	Corruption and poor governance	Poor wages and poverty	Poor infrastructures
Intercept	-1.9337***	-1.8916***	-2.3163***	-1.8801***	-1.8801***	-1.8853***
Individual level controls						
Age	0.0154***	0.0154***	0.0155***	0.0154***	0.0155***	0.0154***
Female	-0.0597	-0.0599	-0.0602	-0.0602	-0.0601	-0.0600
Regional level controls						
GDP growth	0.0344***	0.0346***	0.0330***	0.0352***	0.0338***	0.0347***
Accession (ref. 1957)						
1973-1995	1.2623***	1.2445***	1.2679***	1.2445***	1.2352***	1.2479***
2004-2007	1.4256***	1.4449***	1.8690***	1.2894***	1.6507***	1.3547***
Unemployment	-0.0070	-0.0058	0.0105	-0.3019***	0.0036	-0.0099
EQI	1.1347***	0.0025	0.0063*	0.0020	0.0045	0.0021
Eurozone	0.0026	1.0775***	1.0989***	1.1245**	0.9908***	1.1130***
Individual level Indicators (Utilitarian Theory)						
Occupation (ref. Employed)						
Unemployed	-0.3017***	-0.3018***	-0.3044***	-0.3019***	-0.3008***	-0.3019***
Housewife	-0.1057	-0.1048	-0.1052	-0.1047	-0.1051	-0.1053
Retired	-0.0009	-0.0006	-0.0056	0.0006	-0.0025	-0.0001
Student	0.4378***	0.4387***	0.4406***	0.4383***	0.4384***	0.4383***
Other	0.0589	0.0593	0.0605	0.0580	0.0637	0.0584
Education (ref. Elementary school)						
High school	0.3583***	0.3580***	0.3547***	0.3599***	0.3537***	0.3594***
Post-graduate	0.8578***	0.8553***	0.8378***	0.8605***	0.8431***	0.8592***
Years in the area	-0.0038**	-0.0038**	-0.0039**	-0.0038**	-0.0039**	-0.0038**
Household income (ref. Low)						
Medium	0.1187*	0.1194*	0.1204*	0.1183*	0.1214*	0.1185*
High	0.3756***	0.3754***	0.3705***	0.3759***	0.3731***	0.3759***
Don't know	0.5355***	0.5355***	0.5332***	0.5355***	0.5345***	0.5353***
Benefited from EU project (ref. Yes)						
No	-0.6399***	-0.6378***	-0.6373***	-0.6361***	-0.6374***	-0.6374***
Don't Know	-0.2630**	-0.2630**	-0.2637**	-0.2604*	-0.2604*	-0.2627**
Regional level Indicators (Utilitarian Theory)						
Net Contribution	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***
Perceived Regional Economy (compared with 5 years ago) (ref. Better)						

About the same	-0.4833***	-0.4825***	-0.4834***	-0.4816***	-0.4831***	-0.4822***
Worse	-0.9665***	-0.9655***	-0.9704***	-0.9636***	-0.9689***	-0.9645***
Structural Funds per capita by themes						
Unemployment	-0.0002					
Environmental concerns		-0.002				
Poor Education			-0.0043***			
Corruption and poor governance				-0.004		
Poor wages and poverty					-0.0030***	
Poor infrastructures						-0.0001
Statistics						
Variance (level 2)	0.1170***	0.1170***	0.0913***	0.1031***	0.1185***	0.1189***
N	15436	15436	15436	15436	15436	15436
ll	-9.13e+03	-9.13e+03	-9.13e+03	-9.13e+03	-9.13e+03	-9.13e+03
ICC	0.03	0.03	0.03	0.03	0.03	0.03
chi2	1095.4405	1132.5201	1051.9361	1026.7536	1129.4821	1103.8923
p	0.0000	0.0000	0.0000		0.0000	0.0000
aic	1.83e+04	1.83e+04	1.83e+04	1.83e+04	1.83e+04	1.83e+04
bic	1.85e+04	1.85e+04	1.85e+04	1.85e+04	1.85e+04	1.85e+04

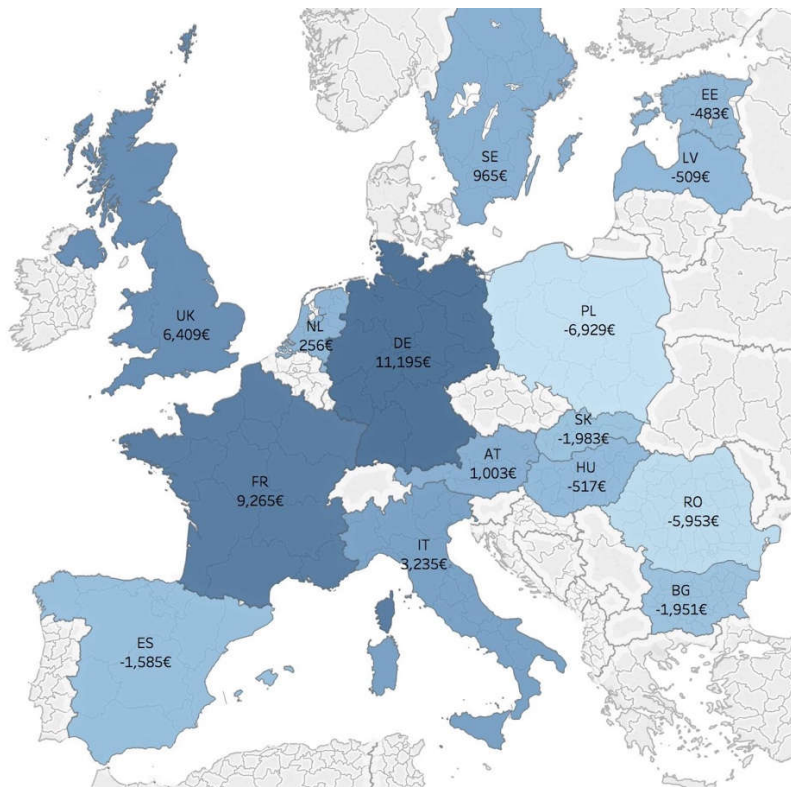
legend: * p<.1; **p<.05; *** p<.01

Table A5. Mixed effect model with random effect at regional level for identification with Europe, structural funds by themes

Identification with Europe, Structural Funds by themes						
	Unemployment	Environmental concerns	Poor Education	Corruption and poor governance	Poor wages and poverty	Poor infrastructures
Intercept	5.2073***	5.0486***	5.0267***	4.7519***	4.9969***	5.3638***
Individual level controls						
Age	0.0163***	0.0163***	0.0163***	0.0163***	0.0163***	0.0163***
Female	0.2047***	0.2050***	0.2055***	0.2051***	0.2054***	0.2053***
Regional level controls						
GDP growth	-0.0179	-0.0205	-0.0180	-0.0156	-0.0187	-0.0233
Accession (ref. 1957)						
1973-1995	0.7317***	0.9114***	0.8417***	0.8452***	0.8857***	0.8541***
2004-2007	0.5663	0.5795	0.9454**	1.0336***	0.9158**	0.9158**
Unemployment	-0.0140	-0.0212	-0.0031	0.0030	-0.0069	-0.0210
EQI	-0.0060	-0.0060	-0.0044	-0.0019	-0.0050	-0.0085
Eurozone	0.5819**	0.8389***	0.7160***	0.7545***	0.7960***	0.7015***
Individual level Indicators (Utilitarian Theory)						
Occupation (ref. Employed)						
Unemployed	-0.2222*	-0.2217*	-0.2218*	-0.2225*	-0.2226*	-0.2204*
Housewife	-0.0108	-0.0126	-0.0120	-0.0110	-0.0121	-0.0093
Retired	0.1290	0.1280	0.1274	0.1275	0.1271	0.1291
Student	0.5271***	0.5224***	0.5231***	0.5234***	0.5231***	0.5255***
Other	-0.1629	-0.1631	-0.1610	-0.1602	-0.1624	-0.1650
Education (ref: Elementary school)						
High school	0.4124***	0.4149***	0.4109***	0.4102***	0.4126***	0.4138***
Post-graduate	1.0766***	1.0844***	1.0769***	1.0751***	1.0797***	1.0784**
Years in the area	-0.0065***	-0.0065***	-0.0065***	-0.0065***	-0.0065***	-0.0065***
Household income (ref. Low)						
Medium	0.1330	0.1309	0.1330	0.1337	0.1324	0.1318
High	0.4133***	0.4114***	0.4113***	0.4089***	0.4110***	0.4149***
Don't know	0.1179	0.1183	0.1207	0.1199	0.1206	0.1148
Benefited from EU project (ref. Yes)						
No	-0.7428***	-0.7485***	-0.7495***	-0.7487***	-0.7498***	-0.7455***
Don't Know	-0.4454***	-0.4490***	-0.4491***	-0.4498***	-0.4506***	-0.4460***
Regional level Indicators (Utilitarian Theory)						
Net Contribution	0.0000*	0.0000**	0.0000*	0.0000**	0.0000*	0.0000**
Perceived Regional Economy (compared with 5 years ago) (ref. Better)						

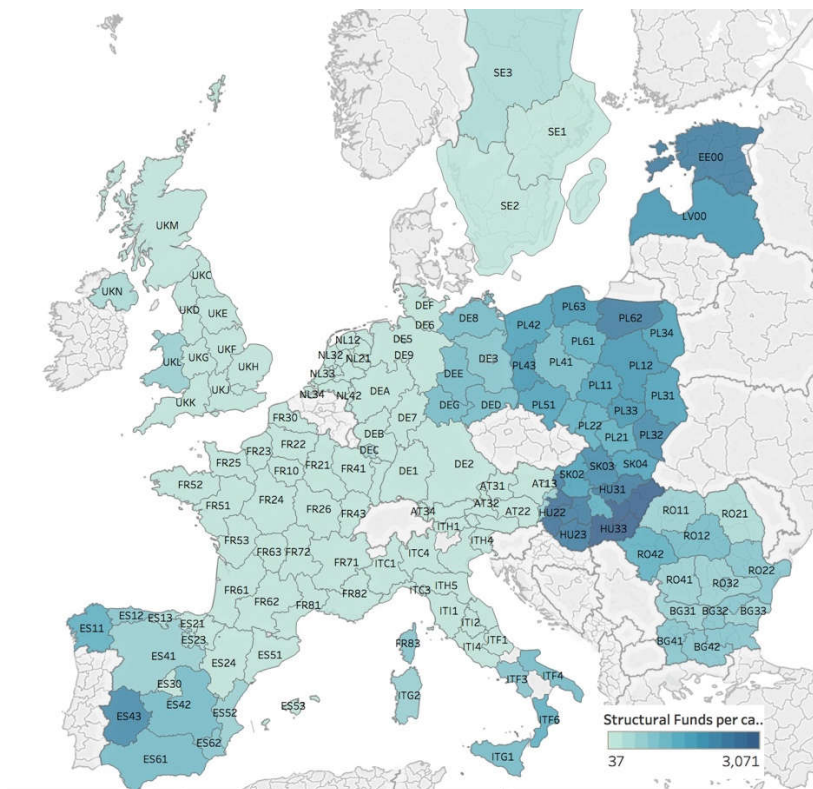
About the same	-0.3873***	-0.3897***	-0.7495***	-0.3900***	-0.3904***	-0.3884***
Worse	-0.7594***	-0.7620***	-0.4491***	-0.7642***	-0.7636***	-0.7602***
Structural Funds per capita by themes						
Unemployment	0.0014***					
Environmental concerns		0.0012**				
Poor Education			0.0021			
Corruption and poor governance				0.0027*		
Poor wages and poverty					0.0026	
Poor infrastructures						0.0012***
Statistics						
N	16900	16900	16900	16900	16900	16900
lns1_l_l						
_cons -	-0.5055***	-0.4834***	-0.4612***	-0.4757***	-0.4658***	-0.5293***
lnsig_e						
_cons	0.9664***	0.9664***	0.9664***	0.9664***	0.9664***	0.9664***
ll	-4.06e+04	-4.06e+04	-4.06e+04	-4.06e+04	-4.06e+04	-4.06e+04
ICC	0.05	0.05	0.05	0.05	0.05	0.05
chi2	9.374959	8.968143	8.997041	9.125361	8.922314	9.493182
p	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
aic	8.12e+04	8.12e+04	8.12e+04	8.12e+04	8.12e+04	8.12e+04
bic	8.14e+04	8.14e+04	8.14e+04	8.14e+04	8.14e+04	8.14e+04

Figure A3. Operating budgetary balances in 2016



Source: EU Commission. http://ec.europa.eu/budget/figures/interactive/index_en.cfm

Figure A4. Structural Funds payments per-capita 2007-2013



Source: EU Commission, 2018