



ISSN: 1695-7253 e-ISSN: 2340-2717
investig.regionales@aecr.org
AECR - Asociación Española de Ciencia Regional
www.aecr.org
España – Spain

Profiling identification with Europe and the EU project in the European regions

Cristina Brasili, Pinuccia Calia, Irene Monasterolo

Profiling identification with Europe and the EU project in the European regions

Investigaciones Regionales - Journal of Regional Research, 46, 2020/1

Asociación Española de Ciencia Regional, España

Available on the website: <https://investigacionesregionales.org/numeros-y-articulos/consulta-de-articulos>

Additional information:

To cite this article: Brasili, C., Calia, P., & Monasterolo, I. (2020). Profiling identification with Europe and the EU project in the European regions. *Investigaciones Regionales - Journal of Regional Research*, 2020/1 (46), 71-91.

Profiling identification with Europe and the EU project in the European regions

*Cristina Brasili**, *Pinuccia Calia***, *Irene Monasterolo****

Received: 11 February 2019

Accepted: 12 November 2019

ABSTRACT:

Recent political events in the European Union (EU) highlighted a growing dissatisfaction of citizens in several EU regions with the EU institutions' management of socio-economic and financial challenges. This eventually led to a political legitimization crisis, whose drivers are partially shared among EU regions and partially area-specific. However, the relation between citizens' identification with the EU project and the regions' characteristics has not been analysed yet. In this article, we fill in this gap by addressing three research questions: i) To what extent do EU citizens identify with Europe and the EU project? ii) Do European regions have different patterns and level of identification? iii) Are the results driven by specific socio-economic variables?

Answering these questions is crucial to inform a more inclusive and resilient design of the EU Cohesion Policy in a crucial period for reforming the EU. To this purpose, we develop a novel probabilistic classification model, IdentEU, which embeds with the concept of individual identification with Europe. We use micro-level data from a survey implemented within the PERCEIVE project. We find that the influencing variables that mostly affect (citizens and) regions' identification with the European project are: trust in the EU institutions, the effectiveness of EU Cohesion Policy and spending, and the level of corruption. These issues gain relevance at the light of three main challenges that affected the EU socio-economic development path in the last decade, i.e. the 2008 financial crisis, the globalization process, and Brexit.

KEYWORDS: Identification; Citizens' perception of the EU; Cohesion Policy; probabilistic model; IdentEU.

JEL CLASSIFICATION: C38; R58.

Describiendo la identificación con Europa y con el proyecto de la Unión Europea en las regiones europeas

RESUMEN:

Los recientes acontecimientos políticos en la Unión Europea (UE) pusieron de relieve una creciente insatisfacción de los ciudadanos en varias regiones de la UE con la gestión de los desafíos socioeconómicos y financieros de las instituciones de la UE. Esto eventualmente condujo a una crisis de legitimidad política, cuyas causas son parcialmente compartida entre las regiones de la UE y parcialmente específicas de cada área. Sin embargo, la relación entre la identificación de los ciudadanos con el proyecto de la UE y las

* Department of Statistical Science. University of Bologna. cristina.brasili@unibo.it

** Department of Statistical Science. University of Bologna. pinuccia.calia@unibo.it

*** Vienna University of Economics and Business. irene.monasterolo@wu.ac.at

Corresponding author: pinuccia.calia@unibo.it

características de las regiones aún no se ha analizado. En este artículo, llenamos este vacío abordando tres preguntas de investigación: i) ¿En qué medida los ciudadanos de la UE se identifican con Europa y el proyecto de la UE? ii) ¿Tienen las regiones europeas diferentes patrones y niveles de identificación? iii) ¿Los resultados se basan en variables socioeconómicas específicas?

Responder estas preguntas es crucial para generar un diseño más inclusivo y resiliente de la Política de Cohesión de la UE en un período crucial para la reforma de la UE. Con este fin, desarrollamos un nuevo modelo de clasificación probabilística, IdentEU, que se integra con el concepto de identificación individual con Europa. Utilizamos datos a nivel micro de una encuesta implementada dentro del proyecto PERCEIVE. Encontramos que las variables que principalmente afectan la identificación de (ciudadanos y) regiones con el proyecto europeo son: confianza en las instituciones de la UE, la efectividad de la Política de Cohesión y el gasto de la UE, y el nivel de corrupción. Estas cuestiones cobran relevancia a la luz de tres desafíos principales que afectaron la trayectoria del desarrollo socioeconómico de la UE en la última década, es decir, la crisis financiera de 2008, el proceso de globalización y el Brexit.

PALABRAS CLAVE: Identificación; Percepción ciudadana de la UE; Política de Cohesión; Modelo probabilístico; IdentEU.

CLASIFICACIÓN JEL: C38; R58.

1. INTRODUCTION

The topic of European identity and citizens' identification with the European Union (EU) and its project gained attention in relation to three recent political and economic developments in the EU. First, the last historical EU enlargement to Eastern European and Western Balkans countries occurred between 2004 and 2013 that brought 13 new Member States (MS) in the EU. Second, the EU institutions' response to the 2008 financial crisis and the management of the Greek crisis that focused on fiscal rigour and the introduction of the Fiscal Compact. Third, the referendum that stated the willingness of the majority of UK-voters to leave the EU, the so-called Brexit.

EU citizens' responses to the way EU institutions managed these challenges were very heterogeneous across countries and showed a diffused dissatisfaction with the EU institutions and the EU project. There is a growing awareness of the fact that EU citizens' dissatisfaction with the EU could have resulted in a lower identification with the EU project and reflected in the outcomes of political elections in several EU MS, such as Italy.

However, the drivers of citizens' identification with the EU project and perception of the EU, the influence of the regional socio-economic characteristics and policy governance at the national level, and what role (if any) the EU Cohesion Policy has played in this process have not been adequately analysed yet. At this regard, three research questions deserve consideration, that is:

- i. To what extent do EU citizens identify with Europe and the EU project?
- ii. Do European regions have different patterns and levels of identification?
- iii. Are the results driven by specific socio-economic variables?

Answering these three research questions is policy timely and relevant. Indeed, it contributes to contextualize and to better understand the current political context of the EU, which is characterized by growing Euro-skepticism and citizens' preference for populist parties, as well as by citizens' claims for democratization and transparency of the EU financial and economic decision making, at the light of EU citizens' identification with the EU institutions. Answering these research questions is also at the core of the research agenda of the H2020 PERCEIVE project¹.

¹ Horizon 2020 PERCEIVE project, Perception and Evaluation of Regional and Cohesion policies by Europeans and Identification with the values of Europe, Grant Agreement number 693529.

So far, the concepts of identity and identification with the EU have been analysed in the literature in terms of individual and collective European identity mostly at the qualitative level (Bergbauer, 2018). A recent attempt to quantify citizens' identification with the EU is represented by the development of the Composite Index of European Identity by Royuela (2018). Nevertheless, a systematic quantitative framework is still missing. To fill in this methodological and knowledge gap, we introduce an innovative robust methodological solution based on the development of a probabilistic model, IdentEU, based on Latent Class Analysis. IdentEU enables a quantitative measurement of citizens' identification that simultaneously accounts for different dimensions underlining the concept of individual identification with the EU and discloses patterns of identification described by different attitudes. An original feature of our approach is that we can produce identification measurements at different spatial levels. Not only we can produce a classification of citizens with different patterns of identification, but we can also define a classification of the EU regions into groups with common profiles of identification, consistently with the emerging pattern of citizens' classification. The latter innovation is crucial for studying the influence of regional context on identification with the EU and understanding what role (if any) the Cohesion Policy plays in the relationship between EU citizens and the EU project. To the best of our knowledge, it is the first time that our approach has been implemented to study identification with the EU.

The paper is organized as follows. Section 2 briefly summarizes the theoretical and empirical literature related to our analysis and stress the novelty of our approach. Section 3 presents the methodology and the data used for the analysis. Section 4 presents the results of the clustering at the citizens and regional level discussing the regional drivers. Section 5 concludes.

2. EUROPEAN IDENTITY: CONCEPTUALIZATION AND MEASUREMENT

Interest in European identity has risen considerably after the Maastricht Treaty, which increased the role of the EU in many policy areas, eroding the control of national governments. Since then, research in European public opinion and identity has been interested in how Europe reshapes national identities, the extent to which individuals identify themselves as Europeans, and their attitudes towards the EU and the integration process (Mendez & Bachtler, 2017).

Different conceptual and methodological approaches from social sciences contributed to the research on European identity. Social identity research (Tajfel, 1981, Tajfel & Turner, 1986) in particular has been influential for understanding the key dimensions of identity (cognitive, affective and evaluative, see below) and how identities are derived: from perceived membership qualities of groups and their comparison against other out-groups (Risse, 2010, 2014; Herrmann *et al.*, 2004; Fligstein, 2008; Fligstein *et al.*, 2012) as well as the recognition of the multiplicity of territorial identities and their interactions (Herrmann & Brewer, 2004; Risse 2003; Mendez & Bachtler, 2017). European identity is not necessarily in competition with national identity. Instead, multiple identities can co-exist and even mutually reinforce each other (Citrin & Sides, 2004; Risse, 2010, 2014; Carey, 2002).

However, some problems arise when empirically measuring identity and identification. The empirical literature studies the relationship between support for European integration with three different types of explanations (utilitarian, identity-driven and benchmarking with the domestic context, see Hobolt & de Vries, 2016). Frequently, identity (both national or European) is measured by a single variable. Carey (2002) uses pride and attachment to region/country/Europe (from Eurobarometer data) and shows that exclusive national identity has a significant negative effect on support for European integration. Hooghe and Marks (2005) use the Moreno question² and attachment (from Eurobarometer) to measure exclusive national and mixed identities. They find that exclusive national identities influence public support for integration, but the extent depends on how divided national elites are. Verhaegen *et al.* (2014) analyse

² "In the near future, do you see yourself as – Nationality only, Nationality and European, European and Nationality, or European Only".

how support for European integration and European identity are influenced by perceived economic benefits. They use Eurobarometer data and measure identity with the question: “Do you feel you are a citizen of the EU?”. In another study, the same authors (2017) measure European identity through an index obtained as the sum of two items (feeling European in one’s day-to-day life and attachment to the European Union) using data from the 2009 IntUne Mass survey and analyse its relationship with trust towards other European citizens and trust in European institutions.

However, the validity of these kinds of variables for measuring national or European identity is challenged by Bruter (2008). The author pointed out how a more critical and rigorous measurement of European identity is needed and drew attention on the multi-dimensional conceptualisations of European identity.

Drawing from this literature, this work deals with the empirical measurement of identification with the EU introducing a new methodological approach (the IdentEU probabilistic classification model) that accounts for the multi-dimensional conceptualization of European identity. The approach builds on the concept of social identity and the definition of individual identification with Europe as “citizens’ self-categorization as Europeans together with their evaluation of their membership in the European collective, and their effective attachment to Europe and other Europeans” (Bergbauer, 2018, p.18). We can recognize in this definition the three components in the conceptualization of identity, i.e. cognitive, affective and evaluative, where:

- the cognitive component refers to self-categorization as a member of a group (Self-categorization);
- the evaluative component refers to the assignment of value connotation (negative or positive) to the social group and his membership, by comparing people from the group with people out of the group (Evaluation);
- the affective component refers to the emotional attachment and feeling of love and concern for the group, i.e. a “we-feeling” dimension (Attachment).

This approach is implemented on an original dataset (see section 3.2). These data simultaneously provide the assessment of attitudes and perceptions on different aspects. Hence, this allows to account for the different dimensions underlining the concept of individual identification and disclose patterns of identification with the EU described by attitudes on different aspects.

We use such information to proxy the three components above in the light of the results on the literature on support for European integration and European identity (see section 3.2).

Moreover, this approach enables to consider identification at different spatial levels and provides a measurement of identification with the EU at both individual and regional level. A specific feature of the approach is the classification of the EU regions into groups with common profiles of identification consistently with the emerging pattern of citizens’ classification.

This element is of particular relevance for studying the influence of regional context on identification with the EU and, specifically, for understanding what role (if any) the Cohesion Policy plays in the relationship between EU citizens and the EU project.

3. METHODOLOGY

In this section, we describe the methodological approach (the IdentEU probabilistic model) used to obtain patterns of identification with the EU both at the citizens and regional level, and the data and variables used to implement it.

3.1. MEASURING IDENTIFICATION WITH EUROPE AND THE EU PROJECT

We develop a probabilistic model for classification using Latent Class Analysis (LCA) and multilevel modelling (Hagenaars & McCutcheon, 2002; Vermunt, 2003; Skrondal & Rabe-Hesketh, 2004, Vermunt & Magidson, 2016). LCA studies the associations among a set of observed categorical variables and assumes that they are explained by an unobserved latent variable (in our model, the identification with the EU) treated as categorical. LCA is the most adequate statistical tool for our empirical exercise because all the observed variables in our data are categorical. Further, LCA assumes the latent variable is also categorical and its values correspond to population clusters³. Despite being possible to consider identification as a latent continuous variable, assuming a discrete form allows us to define patterns of identification according to different profiles of the respondents and distinguish the dimensions that most differentiate across them.

Defining K interrelated categorically observed measures Y_{ijk} , response to item k of person i coming from region j , the model identifies T classes of a latent variable X_{ij} that describes an unobservable construct (identification with the EU) and provides a classification of individuals based on the response patterns to the K indicators. The latent classes $t=1, \dots, T$ (clusters) represent the unobservable levels of identification; each latent class is described by the pattern of the K individual responses with the highest probability in that class (Standard LC Model).

Furthermore, the model exploits the nested structure of the data considering individuals nested into regions. This hierarchical model accounts for unobserved regional effects specified as a discrete latent variable W_j , where W_j describes latent types (groups) of regions for which the parameters in the model differs and allows to classify the regions into a small number of latent classes, $m=1, \dots, M$.

Hence, in this model, identification with the EU project is described by two discrete latent variables, one for the classification of individuals and the other for the classification of the regions, to which they are allocated with certain probabilities. We do not consider a further level of analysis, i.e. at the country level, for several reasons⁴. However, the classification of the regions assumes that all the regions belonging to the same group share the same specific unobservable effect, which might capture country effects as well, at least partially.

The model also accounts for the effect of individual Z_{ij} and regional characteristics Z_j^g on the probabilities of class membership.

The estimation of the model produces the following probabilities that are obtained from a multinomial logit specification using different parameters at each level:

1. The latent class probability at the regional level $P(W_j = m | Z_j^g)$: is the probability that region j belongs to a particular class of the latent variable W_j , given the regional covariates. It delivers information about the distribution of the population among the regional classes.
2. The latent class probability at the individual level $P(X_{ij} = t | W_j = m, Z_{ij})$: is the probability that the respondent i of the j -th region belongs to a particular class of the first level latent variable X_{ij} , given regional latent class membership and the individual covariates. It delivers information about the distribution of the population among the individual classes.

³ Principal components and Factor analysis are used with continuous observed variables and involve correlations. Moreover, Factor analysis produces a continuous latent variable. By contrast, LCA is used when the observed variables are categorical and the resulting latent variable is categorical too, defining different clusters in the population.

⁴ Country effects could be introduced as the third level of analysis or as fixed effects via country dummies at the regional level. Both solutions, however, would increase exponentially the number of parameters (which already are 190) getting model estimation instable. Further, some of the contextual variables are defined at the regional level and are highly heterogeneous even within the same country. Moreover, the Cohesion Policy is implemented at the regional level and this is the most relevant level of analysis to check whether it affects citizens' identification with the EU in some way.

3. The conditional probability of individual response pattern $\prod_{k=1}^K P(Y_{ijk} = s_k | X_{ij} = t, W_j = m)$: is the joint probability that the i -th respondent follows the response pattern s_i (for the K indicators) given individual and regional latent class membership. It delivers information for describing the latent classes.

These three probabilities will be used to classify the citizens' and the regions according to the level and pattern of citizens' identification with the EU project.

3.2. DATA AND VARIABLES

For building the model, we rely on data from a sample survey developed within the PERCEIVE project (Bauhr & Charron, 2018a, 2019) and a dataset that brings together information from several official secondary sources at regional level (NUTS1 and NUTS2) in a panel format (Charron, 2017). The survey collects information from a sample of 17.147 individuals of 18 years of age or older from 15 EU Member States (comprising 153 regions) and was conducted during the summer of 2017.

For the measurement of the level of identification and classification of individuals and regions, we select ten variables from the PERCEIVE survey that we consider proxy of the latent identification with the EU. The ten variables are grouped into three macro-areas, i.e. self-categorisation as European, evaluation of EU membership and strength of affective attachment. These variables strive for describing the three components of the concept of individual identification developed by social psychology (Bergbauer, 2018) and described in Royuela (2018) and Aiello *et al.* (2018), i.e. "Self-categorization as European", "Evaluation of EU membership", "Affective attachment". The definition and the categories for each indicator are reported in Table A1 in the appendix.

A group of three variables are chosen to account for self-categorisation as European. The first variable considers how strong the respondent identifies with Europe and the second is defined comparing the responses to the above question with those to a similar question regarding how strong the respondent identifies with her own country. While the first variable is suggested by Bruter (2008) for a general assessment of the European identity, the second one assesses the coexistence of multiple identities. We also consider to what extent the respondent is familiar with the Cohesion Policy, whatever the name used. We expect this variable to be positively correlated with the awareness and recognition of the European Union self-membership.

Five variables are chosen to account for the evaluation of EU membership. The first asks whether the respondent considers her/his own country's EU membership a bad or a good thing. This question has been often used to proxy support for EU integration (Carey, 2002; Verhaegen *et al.*, 2014). Two other questions ask whether she/he considers the EU institutions effective at dealing with the main problems faced by the region where she/he lives, in comparison to the national government. Finally, two variables deal with the perception of the level of corruption in EU institutions, in comparison to corruption in the national government. We use these variables to assess the individual evaluation of the functioning and the performance of EU and national institutions. Such evaluation contributes to political trust, which in turn may influence identification with the EU (Verhaegen *et al.*, 2017).

Two last variables should account for the strength of affective attachment. Respondents are asked whether they agree with the EU policy of redistributing more financial funding to the poorer EU regions. This indicator measures the citizen support for the Cohesion Policy and, indirectly, the support for the values promoted by the EU. Hence, it may be used to proxy their attachment to Europe and other Europeans. The relationships between support to specific policies (in particular, redistribution and aid within EU) and identity, corruption and institutional quality were also studied empirically by Bauhr and Charron (2018b, 2019). Finally, we consider whether the respondents voted in the last two EU parliamentary elections.

Here we comment on some descriptive statistics on the main variables used in the analysis for the whole sample and separately by country (Tables A2 and A3 in Appendix).

We notice that about 54% of people identify strongly with Europe and only 15% has a weak identification. However, there is a lot of heterogeneity across countries. Slovakia, Poland, Germany, Austria have a higher percentage of people that strongly identify with Europe than average, whereas this is lower in countries like Estonia, France, Italy, and the Netherlands (Table A.2). The feeling about the capacity of the EU to solve problems is not so positive: 52% perceive that the EU is not so effective and only 11% appraise the EU very effective. Perception of great efficacy is higher in Romania, Bulgaria, Slovakia and Spain compared to other countries, whereas Italy and Hungary, Sweden and the UK have a rather negative perception. Corruption in EU institutions is a concern for European citizens. Indeed, only 13% perceive a low level of corruption, while 47% think it is widespread, in particular for citizens in Slovakia, Italy, and Spain. By contrast, in Bulgaria and Romania, a largest share of respondents perceive lower corruption at the EU institutions level than the average of the sample.

Nevertheless, the majority of European citizens consider their country's EU membership as a good thing (62%), and 80% agree with the idea of EU Cohesion Policy - wealthier countries contribute more and the poorest regions receive more funding from EU (Table A.3). Countries where citizens consider the EU membership as a good thing are Germany, Poland and Romania. By contrast, citizens in Italy, the Netherlands, Sweden and Latvia are the most adverse. In every country, the percentage of people that support the idea of the Cohesion Policy is high, with a larger share of conflicting citizens in the Netherlands (33%), France (28%), Austria (27%) and the UK (26%). Most European citizens are aware of Regional/Cohesion Policy, but in some countries (the Netherlands, the United Kingdom) the awareness of EU policies is significantly lower.

Then, we also consider other variables to be used in the model as controls, such as age, education, occupational and economic status. At the regional level, we consider GDP per inhabitant in Euro in 2014 as percentage of EU average, the unemployment rate for 20-64 years people in 2014, per capita amount of Structural Fund expenditures in the period 2007-13, the European Index of Institutional Quality (EQI) in 2013 (normalised at 100), and the absorption rate of the Structural Fund financial allocation in 2013⁵. While the EQI assesses the institutional quality based on the experiences and perception of citizens (Charron et al., 2014), the absorption rate could be considered as an objective measure of the regions' efficiency in programming and implementing the Cohesion Policy. Some studies show (Bojijmans *et al.*, 2014; Tosun, 2014) a strong correlation between absorption rate and institutional quality at the country level.

4. RESULTS

In this section, we discuss the results on citizens' identification patterns. Before discussing how the EU regions differ in the pattern of citizens' identification and their drivers, we briefly introduce a description of the citizens' clusters: individual and regional classifications, while distinct, are not independent and regional identification patterns are derived from the citizens' cluster structure in the regions belonging to each group (cf. Table 2).

4.1. PROFILING CITIZENS' CLUSTERS

The final model distinguishes six clusters of citizens and four different groups of regions. Starting from the citizens' clusters, a description can be obtained looking at the conditional response probabilities reported in Table A.4 in the appendix: these represent the chance of choosing a specific response category of each indicator for the individuals belonging to each cluster. More information on the individual clusters can be found in Brasili *et al.* (2019).

⁵ The regional aggregation in the survey is at level NUTS2 for the majority of the countries in the sample, except for Germany, the UK and Sweden (aggregation at NUTS1 level), and Latvia and Estonia (aggregation at country level).

We recognize an evident dichotomy between two groups of clusters. Three of them comprise citizens that strongly identify with Europe as well as with their countries or even more, which think the EU membership is a good thing and that strongly agree with the founding principle of solidarity represented by the Cohesion Policy. Yet, there are differences among them that regard the trust in the EU institutions, such as the perception of effectiveness and corruption. *Confident Europeans* (Cluster 3 - 17% of citizens) perceive a low level of corruption in the EU, even in comparison to their national government, whereas they evaluate less positively the effectiveness of the EU in solving problems. By contrast, *Wary pro-Europe* (Cluster 4 - 15%) evaluate the action of the EU in solving problems quite effective, even more effective than the action of their own country, but they do not trust the EU institutions too much because they perceive a high level of corruption in the EU, equal or somewhat higher than in the national government. Awareness of Regional/Cohesion Policy is quite high in both groups. *Disappointed pro-Europe* (Cluster 1 - 27%) evaluate the EU Institutions quite negatively on both aspects. People have a higher chance to be not aware of any European policy than Cluster 4 or 3.

On the opposite side, three clusters include citizens that weakly identify with Europe, identify more strongly with their countries and evaluate EU membership less positively. However, they show differences, the same already detected within the first group, about the evaluation of effectiveness and corruption. *EU Deniers* (Cluster 2 - 20%) have the most negative attitude toward the EU. They also perceive that the EU is not much effective in solving problems of their region and less effective than the national government, and that corruption is widespread in EU institutions, as like as in national institution and even more. *Disaffected Europeans* (Cluster 5 - 11%) and *Wary Cons Europeans* (Cluster 6 - 10%) are less likely to consider the EU membership a bad thing than people in cluster 2 (they are equally divided). However, people in the former cluster evaluate negatively the effectiveness of the EU in solving problems in their region and positively the level of corruption in EU institutions and comparatively with national ones. By contrast, people in the latter cluster perceive higher levels of corruption but appreciate the capacity of EU institutions in solving problems, especially in comparison to national institutions. Nevertheless, the majority of the people in these clusters still agree in sustaining the poorest regions but a greater share of respondent do not agree with the policy compared to clusters in the first group.

4.2. REGIONAL PATTERNS OF IDENTIFICATION

As for individual clusters, we can obtain a global synthesis of the characteristics of latent classes identifying groups of regions from the profile Table 1. The first row shows the size of the classes at regional level (*prior probabilities*), whereas the other values are the response probabilities to every indicator's categories for the individuals living to each group of regions (see the note below Table 1).

Looking at these probabilities, Group 2 can be labelled "**High EU identification**" because it is the group of regions with a high level of identification with Europe and where people have a higher level of trust and appreciation for EU institutions. In comparison with the other groups, people have the highest probability of strongly identifying with Europe (0.62), and a high chance to consider the EU membership a good thing (probability 0.71). They consider EU institutions effective in solving problems with probability greater than 60%; moreover, there is a larger proportion of people that think the EU is more effective than the national government (probability about 0.3). On the contrary, the probability of perceiving a high level of corruption in the EU is the lowest. Most people agree with supporting the poorest regions (with probability 0.83). In this group, the awareness of EU policies is higher than the other.

The regions in Group 3 - "**Medium-high EU identification – Critics**" - are characterized by a relatively high proportion of people that strongly identify with Europe, as strongly as with their own country, and about 80% chance that approve the EU financial support of poorest regions. Moreover, the chance of responding that the EU membership is a good thing is the highest (probability 0.76). However, the perception of efficacy and corruption of EU institutions is not as good as in the regions of Group 2.

TABLE 1.
Profile table of regional groups: group size and group-specific marginal probabilities

	Group 1 <i>Lower EU identification</i>	Group 2 <i>High EU identification</i>	Group 3 <i>Medium-high EU identification Critics</i>	Group 4 <i>Low EU Identification Sceptical</i>
<i>Group Size</i>	0.386	0.322	0.151	0.142
<i>How strongly identify with Europe</i>				
<i>Not much strongly</i>	0.195	0.119	0.130	0.179
<i>Somewhat strongly</i>	0.360	0.261	0.282	0.318
<i>Strongly</i>	0.445	0.620	0.588	0.504
<i>Europe vs Country identification</i>				
<i>Less</i>	0.349	0.221	0.241	0.304
<i>Equal</i>	0.569	0.666	0.658	0.605
<i>More</i>	0.081	0.113	0.101	0.092
<i>Effectiveness in solving problems</i>				
<i>Not so Effective</i>	0.619	0.381	0.577	0.625
<i>Somewhat effective</i>	0.303	0.449	0.335	0.299
<i>Very effective</i>	0.079	0.171	0.088	0.076
<i>EU vs National effectiveness</i>				
<i>Less</i>	0.256	0.168	0.249	0.259
<i>Equal</i>	0.608	0.534	0.598	0.610
<i>More</i>	0.136	0.298	0.152	0.131
<i>Corruption in EU</i>				
<i>Low</i>	0.107	0.161	0.111	0.119
<i>Medium</i>	0.374	0.431	0.381	0.383
<i>High</i>	0.519	0.409	0.508	0.498
<i>EU vs National Corruption</i>				
<i>Less</i>	0.188	0.358	0.170	0.233
<i>Equal</i>	0.636	0.517	0.657	0.597
<i>More</i>	0.175	0.125	0.174	0.170
<i>Vote</i>				
<i>Neither</i>	0.333	0.303	0.316	0.325
<i>Once</i>	0.161	0.167	0.160	0.159
<i>Both times</i>	0.486	0.509	0.504	0.496
<i>(d/k-refused)</i>	0.021	0.022	0.020	0.020
<i>Support for Cohesion policy</i>				
<i>Agree</i>	0.771	0.831	0.800	0.779
<i>Disagree</i>	0.216	0.157	0.187	0.208
<i>d/k</i>	0.013	0.012	0.013	0.013
<i>EU membership</i>				
<i>Bad thing</i>	0.444	0.291	0.238	0.563
<i>Good Thing</i>	0.556	0.710	0.762	0.437
<i>Awareness of Cohesion policy</i>				
<i>None</i>	0.266	0.123	0.224	0.140
<i>Only local project</i>	0.085	0.122	0.090	0.122
<i>Cohesion/regional policies</i>	0.649	0.755	0.686	0.738

People have 57% chance of answering that the EU is not effective in solving region's problems and a 25% probability of responding the EU is less effective than the national government, as well as a 51% chance of answering that corruption in EU institutions is high. Moreover, the probability that people do not know any EU financed policy is higher (0.22) than Group 2.

Group 1 and Group 4 can be both identified as composed by regions where people have a weaker level of identification with Europe, especially in comparison to identification with their country, and are quite critics toward the EU institutions. They have quite similar profile regarding many dimensions: people think that the EU is not very effective in solving problems of the region (with probability 0.62) and that corruption in EU institutions is widespread. Although the probability to agree with the EU policy of supporting the poorest region is high (77%), this value is lower than the one observed in Group 2 and Group 3. Possibly, Group 4 "**Low EU identification – Sceptical**" is characterized by a severer attitude of people toward EU membership of their countries: more than half of the people in regions of Group 4 consider the EU membership a bad thing, more than Group 1 (where the same probability is 0.44). Nevertheless, in Group 4 the chance of not being aware of any EU policy is 14% against 27% in Group 1 – labelled "**Lower EU identification**", - and a greater proportion of people know Cohesion/Regional policies financed by EU.

However, these profiles do not account for the composition of each group of regions by individual clusters, although regional classification reflects individual typologies to some extent, even if in this case differences are less marked. Looking at the relative size of individual clusters within a group of regions can reveal different regional structures of citizens' identification (Table 2).

Consistent with the previous analysis, Group 2 - **High EU identification** is composed for about 50% by *Confident Europeans* (Clusters 3) and *Wary pro-Europe* (Cluster 4), hence citizens with a high level of identification and a quite positive evaluation of EU institution on both dimensions. Group 3 - **Medium-high EU identification – Critics** is composed by 40% of individuals classified in Cluster 1 – *Disappointed pro-Europe* and with a smaller proportion by *EU Deniers* (Clusters 2) and *Wary pro-Europe* (Cluster 4). Group 1 - **Lower EU identification** and Group 4 - **Low EU Identification Sceptical** have quite similar profile since they are composed for the majority by cluster 1 - *Disappointed pro-Europe* and cluster 2 - *EU Deniers*, with a slightly higher proportion of *Disappointed pro-Europe* in Group 4. The main difference is the presence of a certain proportion of *Disaffected Europeans* (Cluster 5) in Group 1 and *Confident Europeans* (Cluster 3) in Group 4; we note the not trivial presence of *Disappointed pro-Europe* (Cluster 1) in each group, which is a cluster composed by people that strongly identify with Europe but that do not trust much the European institutions.

TABLE 2.
Cross-tabulation of cluster membership probabilities within regional groups

	Group 1 <i>Lower EU identification</i>	Group 2 <i>High EU identification</i>	Group 3 <i>Medium- high EU identification Critics</i>	Group 4 <i>Low EU Identification Sceptical</i>	Overall
Group Size	0.386	0.322	0.151	0.142	
Clusters					
<i>Disappointed pro- Europe (1)</i>	0.284	0.184	0.409	0.319	0.273
<i>EU Deniers (2)</i>	0.285	0.106	0.165	0.267	0.197
<i>Confident Europeans (3)</i>	0.087	0.290	0.091	0.165	0.175
<i>Wary pro-Europe (4)</i>	0.108	0.216	0.141	0.088	0.150
<i>Disaffected Europeans (5)</i>	0.154	0.060	0.116	0.111	0.106
<i>Wary Cons- Europe (6)</i>	0.082	0.145	0.078	0.052	0.100

4.3. MAPPING THE LEVEL OF IDENTIFICATION WITH THE EU ACROSS EUROPEAN REGIONS

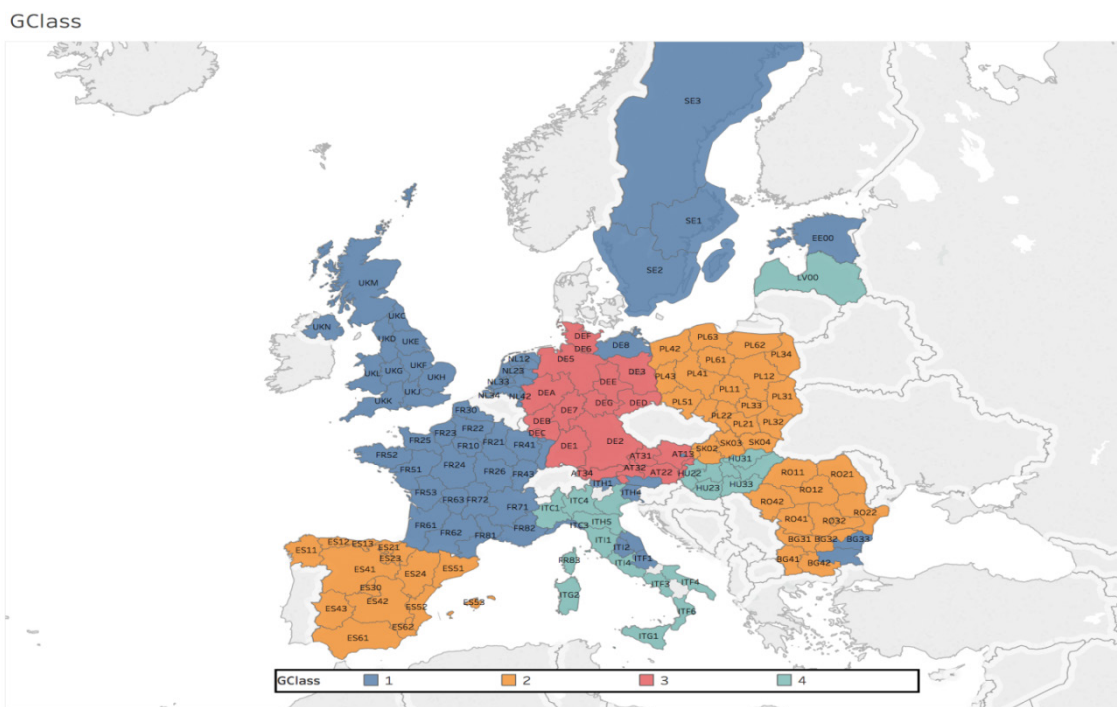
Classification of the regions across the four latent groups can be accomplished assigning each region to the group for which it has the highest posterior probability (Figure 1).

The largest group is Group 1 - **Lower EU identification** that comprises the regions in the northern countries of Europe: all the UK regions and the North Ireland, all the French regions, Netherland, Sweden and Estonia, as well as some regions from Italy. Regions in this group have a lower level of identification with Europe and to some extent consider not a good thing the EU membership, in particular, do not trust too much the EU for corruption. Group 4 - **Low EU identification – Sceptical**, includes most of the regions from Italy, Hungary and Slovakia, which have lower levels of identification as well but are most critics against the EU membership.

On the contrary, most of the regions in countries of Eastern Europe, except the regions from Hungary, are classified in Group 2 - **High EU identification**: people identify strongly with Europe, believe the membership of their country to the EU is a good thing, and trust EU institutions. It includes regions from Poland, from Romania, and most all regions from Bulgaria. All the Spanish regions belong to this group too.

Most of the regions from Germany and Austria are classified in Group 3 - **Medium-high EU identification – Critics**, which are characterized by a high level of identification with Europe, nevertheless they are critics about some aspects such as the effectiveness and corruption of European institutions.

FIGURE 1.
Regions classification in latent groups



- Group 1 – Lower EU identification
- Group 2 – High EU identification
- Group 3 – Medium-high EU identification – Critics
- Group 4 – Low EU identification – Sceptical

4.4. THE EFFECTS OF THE CONTEXT CHARACTERISTICS ON REGIONAL PATTERNS OF IDENTIFICATION

Group membership probabilities have been modelled to depend on regional characteristics (see section 3.1). Table 3 shows the group membership probabilities by specific values of the context covariates at the regional level. These are the conditional probabilities that a region with a specific range of a covariate belongs to each group at the regional level, which can be compared to the overall distribution reported in the first row (unconditional probabilities) to discover specific identification pattern by some characteristic.

The influence of the level of GDP on group-level membership probabilities is quite evident: regions with a higher level of GDP than the European average are overrepresented in Group 1 - *Lower EU identification* and Group 3 - *Medium-high EU identification – Critics*; by contrast, regions with a lower value of GDP than EU average are more likely to be classified in Group 2 - *High EU identification*. The regions with a level of GDP below 50-60% of the EU average are more likely classified in Group 4 - *Low EU identification – Sceptical*.

Regions with low levels of unemployment are over-represented in Group 3 - *Medium-high EU identification*, with a strong identification with Europe and EU but critics, and under-represented in Group 2 - *High EU identification*, with strong identification and trust in EU, and also in Group 4 - *Low EU identification – Sceptical*, with a weaker identification and sceptical about EU institution; in particular, regions with very high unemployment rate are more likely classified within Group 2. Group 1 - *Lower EU identification* (weaker identification) have instead a mixed composition with either low or medium-high unemployment regions, but regions with very high unemployment rate are under-represented in this group (on the contrary of Group 4).

Those regions receiving more financial funding from EU are most likely classified in Group 2 - *High EU identification* and Group 4 - *Low EU identification – Sceptical*, while regions that receive a lower amount of funding from the EU are over-represented in Group 1 - *Lower EU identification* and Group 3 - *Medium-high EU identification*. This situation reflects what happens in the case of GDP: richest regions are receiving less financial funding from EU hence the groups are characterized by an opposite effect of the two covariates.

The influence of absorption rate is not so clear cut: less efficient region in the implementation of Cohesion Policy are over-represented both in Group 2 - *High EU identification* and Group 4 - *Low EU identification – Sceptical*, with different identification and trust level, while most of the regions with medium-high values of the absorption rate are more likely classified in Group 1 - *Lower EU identification* and Group 3 - *Medium-high EU identification* (both critics toward EU about corruption and effectiveness but with different level of identification). However, in Group 2 - *High EU identification* are over-represented regions with a very high absorption rate as well.

Finally, regarding the level of institutional quality (EQI indicator) the emerging picture characterizes Group 1 - *Lower EU identification* and Group 3 - *Medium-high EU identification* as composed more likely by regions with a high level of institutional quality, while the regions with lower levels of the EQI index are more likely included in Group 2 - *High EU identification* and Group 4 - *Low EU identification – Sceptical*.

TABLE 3.
Regional group membership probabilities for specific ranges of contextual covariates

	Group 1 <i>Lower EU identification</i>	Group 2 <i>High EU identification</i>	Group 3 <i>Medium-high EU identification Critics</i>	Group 4 <i>Low EU Identification Sceptical</i>
Overall	0.386	0.322	0.151	0.142
GDP per capita (ratio to EU average)				
0-37	0.051	0.739	0.016	0.194
37-59	0.008	0.615	0.061	0.317
59-97	0.361	0.403	0.086	0.151
97-118	0.687	0.069	0.137	0.107
More than 118	0.515	0.003	0.418	0.064
Unemployment rate				
0-5.5	0.387	0.091	0.457	0.065
5.5-8	0.540	0.120	0.233	0.107
8-9.5	0.383	0.428	0.028	0.161
9.5-14	0.404	0.411	0.010	0.174
More than 14	0.103	0.677	0.000	0.220
Absorption rate				
0-0.5	0.198	0.451	0.033	0.318
0.5-0.6	0.421	0.259	0.104	0.216
0.6-0.65	0.448	0.309	0.183	0.060
0.65-0.78	0.433	0.225	0.267	0.076
More than 78	0.390	0.417	0.161	0.032
SF per capita				
0-108	0.461	0.171	0.316	0.052
108-215	0.679	0.116	0.130	0.075
215-935	0.371	0.350	0.131	0.148
935-2059	0.051	0.687	0.080	0.182
More than 2059	0.001	0.443	0.055	0.501
Quality of institutions (norm. index)				
0-36	0.226	0.537	0.020	0.216
36-42	0.147	0.474	0.039	0.340
42-56	0.164	0.664	0.034	0.138
56-66	0.549	0.175	0.188	0.088
More than 66	0.606	0.009	0.360	0.026

Note: The figures are the conditional probabilities $P(W = m | \mathbf{Z}_p^g = z)$ computed from the estimated model probabilities $P(W = m | \mathbf{Z}^g)$ (section 3.1) aggregating over the values of the other covariates (hence, independently from all the other covariates). The marginal probabilities $P(W = m)$ in the first row are computed from the estimated model probabilities aggregating over all the covariates.

5. CONCLUSIONS

In this paper, we have developed a novel probabilistic model (IdentEU) to analyse citizens' identification with the EU project focusing on those characteristics that allow us to profile different identification patterns across the European regions. Our analysis contributes to the state of the art by addressing three research questions:

- i) To what extent do EU citizens identify with Europe and the EU project?
- ii) Do European regions show different patterns and level of citizens' identification?
- iii) Are the results driven by specific socio-economic variables?

Answering these research questions is policy timely and relevant, and we find some preliminary answers to support a more inclusive and resilient EU design. Citizens' patterns of identification (first question) evidence a clear dichotomy between two groups of clusters. Three clusters comprise citizens who strongly identify with Europe, as well or even more strongly than they identify with their country, positively evaluate the EU membership and support to the poorest regions. By contrast, citizens included in clusters in the second group identify less strongly with Europe (especially *EU Deniers*) and evaluate EU membership less positively. Yet, within both groups, we can recognize a different degree of trust in the EU institutions, and criticism and dissatisfaction toward the functioning and performance of the EU institutions, such as effectiveness and corruption dimensions.

At regional level (second question) our results mirror the identification patterns at the individual level and the same dimensions, i.e. national vs EU identification, evaluation of the EU membership and its effectiveness, level of citizens' awareness of the existence of the Cohesion Policy and agreement on its solidarity values, trust in EU institutions and the perceived level of corruption, characterize the identification of groups at regional level too. About half of the regions (47%) belongs to the two groups with a stronger identification with Europe, while the other half (53%) belongs to the groups with weaker identification with Europe. The geographical distribution of the regional clusters shows that the UK regions and North Ireland, all the French regions, the Netherlands, Sweden and Estonia as well as most of the Italian and Hungarian regions are characterized by lower levels of identification and critical views of EU institutions. On the other hand, the majority of the German and Austrian regions strongly identify with the EU, while several Eastern European regions (with the addition of all Spanish regions) show the highest level of identification with Europe, trust the EU and consider the EU more effective and less corrupt than their national governments.

Last, our study points to the existence of results that are driven to some extent by socio-economic characteristics of the regions (third question). The wealthiest regions, which also receive less funding from the EU, are mostly classified in groups with a lower level of identification and trust and are the most critical toward the EU regarding efficacy and corruption. Moreover, these regions also show a higher level of institutional quality and citizens evaluate their institutions better than EU institutions and they do not perceive any benefits deriving from EU membership. In this sense, our results are consistent with the theory of "compensation", which states that trust in the national institutions sets a sort of "national threshold" that citizens compare to the EU institutions (Muñoz *et al.*, 2011). The authors claim that living in a country with highly trusted and well-performing institutions is negatively associated with trust in European institutions: living in a country with high average trust in the national parliament decreases trust in the European Parliament despite the positive relationship between individual trust in national and in EU Parliaments. By contrast, they find that living in a corrupted country fosters trust in the European Parliament. Peter (2007) showed that even if most of the citizens do not perform an explicit comparison with the "national threshold", this might influence their level of trust in EU institutions, also through a negative categorization of the European Union in the public discourse.

Our findings are also in line with results by Bauhr and Charron (2019). They found that perception of domestic corruption increases support to redistribution within-EU but only in contexts where institutional quality is low and public services are inefficient, while it has no such effect in contexts where institutional quality is high⁶. Similarly, we find that more impoverished European regions show a higher level of identification and trust as well as a positive perception of EU institutions. These are also the regions that reveal a lower level of institutional quality and, at the same time, those receiving more funding from the EU. Thus, the Cohesion Policy might have had some role in fostering citizens' identification and appreciation toward EU in this latter group of regions, which received more funding and where the interventions funded by Cohesion Policy were more visible, even if its implementation was less efficient (as measured by a lower absorption rate). However, this issue needs further investigation: a first attempt to study the role played by Cohesion Policy on support and identification for the EU can be found in Aiello *et al.* (2019).

Although the regional context is important, it is not the exclusive determinant of the intensity of identification. Indeed, regions with similar characteristics along some dimensions may have different levels and patterns of identification, while regions with different characteristics may have similar patterns of identification. Northern Italian regions are quite a peculiar case because regardless of the variety of the social and economic contexts they live in, their citizens share with the Southern regions in Italy a common mistrust towards institutions, both national and European, and they consider Italy's adhesion to the EU a bad thing for their country. These results are consistent with the latest tendencies that emerged in the EU, such as the growing Euro-skepticism that boomed with the Brexit referendum in the UK and was remarked by the results of the recent elections in France, Hungary, and Italy.

In conclusion, the influencing variables that mostly affect citizens and regions' identification with the European project are those currently driving the discussion on the challenges for reforming the EU, such as trust in the EU institutions, the effectiveness of the EU Cohesion Policy and spending, and the level of corruption in EU institutions. In the ongoing debate on the need to reform EU institutions to increase their transparency and accountability to the EU citizens, our results provide a precious snapshot of EU citizens and regions' perception of the European project, and their primary sources of discontent.

Thus, the results obtained through our model confirm the need to partially redirect the Cohesion Policy from the place-based approach to the improvement of citizens' wellbeing, and the need to foster the integration of political interventions. Also, the role of the regional socio-economic context on the pattern of identification is not preeminent. In other words, the influence of other factors on the formation of identification with the EU project and the perceptions of the Cohesion Policy, such as the national political discourse, the media representation of European issues, and the communication strategy of the Cohesion Policy, should be considered as well.

It is also clear that the identification of Europeans towards their institutions will be better understood if we jointly consider the different institutional levels (regional, national and European), which interact with each other because citizens' identification with EU is strongly influenced by trust at the different institutional levels.

ACKNOWLEDGEMENT

The authors acknowledge the support from the European Union's Horizon 2020, Research and Innovation Programme, under the PERCEIVE project, *Perception and Evaluation of Regional and Cohesion policies by Europeans and Identification with the values of Europe*, Grant Agreement number 693529.

⁶ They use data from the PERCEIVE survey

DATA AVAILABILITY STATEMENT

The research data underlying this manuscript are available in AMS Acta Institutional Research Repository (doi.org/10.6092/unibo/amsacta/6226) (Calia, 2019).

REFERENCES

- Aiello, V., Brasili, C., Calia, P., & Monasterolo, I. (2018). *Report on the probabilistic model of estimation of citizens' identification with the EU project and ranking of the case study regions*. PERCEIVE project - Deliverable 2.4. <https://doi.org/10.6092/unibo/amsacta/6113>
- Aiello, V., Reverberi, P. M., & Brasili, C. (2019). European identity and citizens' support for the EU: Testing the utilitarian approach. *Regional Science, Policy and Practice*, 11, 673–693. <https://doi.org/10.1111/rsp3.12242>
- Bauhr, M., & Charron, N. (2018a). *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, 2018.2. The Quality of Government Institute. University of Gothenburg.
- Bauhr, M., & Charron, N. (2018b). Why support International redistribution? Corruption and public support for aid in the eurozone. *European Union Politics*, 19(2), 233-254.
- Bauhr, M., & Charron, N. (2019). The EU as a savior and a saint? Corruption and public support for redistribution. *Journal of European Public Policy*. <http://doi.org/10.1080/13501763.2019.1578816>
- Bergbauer, S. (2018). *Explaining European identity formation*. Springer.
- Boijmans, P., Goldsmith, H., & Verschelde, N. (2014). Administrative capacity building linked to the management of ESI Funds priorities for 2014-2016. Committee of the Regions, 19 June 2014. <https://slideplayer.com/slide/2374371/>
- Brasili, C., Calia, P., & Monasterolo, I. (2019). *Mapping citizens' identification with the EU*. *Regional Science, Policy and Practice*, 11, 655–672. <https://doi.org/10.1111/rsp3.12227>
- Bruter, M. (2008). Legitimacy, Euroscepticism and identity in the European Union. Problems of measurement, modelling and paradoxical patterns of influence. *Journal of Contemporary European Research*, 4(4), 273-285. <https://www.jcer.net/index.php/jcer/article/view/153>
- Carey, S. (2002). Undivided loyalties: is national identity an obstacle to European integration? *European Union Politics*, 3, 387-413. <https://doi.org/10.1177%2F1465116502003004001>
- Charron, N. (2017). Report including the database development and implementation and how it supports all the project WPs. PERCEIVE project - Deliverable 2.1. <http://doi.org/10.6092/unibo/amsacta/5722>
- Charron, N., Dijkstra, L., & Lapuente, V. (2014). Regional governance matters: quality of government within European Union member states. *Regional Studies*, 48(1), 68-90. <https://doi.org/10.1080/00343404.2013.770141>
- Citrin, J., & Sides, J. (2004). More than nationals: how identity choice matters in the new Europe. In R. K. Herrmann, T. Risse & M.B. Brewer (Eds.), *Transnational Identities. Becoming European in the European Union* (pp. 161–185). Rowman & Littlefield.
- Fligstein, N. (2008). *Euroclash: The EU, European identity, and the future of Europe*. Oxford University Press.

- Fligstein, N., Polyakova, A., & Sandholtz, W. (2012). European integration, nationalism and European identity. *Journal of Common Market Studies*, 50(S1), 106-122.
- Hagenaars, J. A., & McCutcheon, A. L. (2002). *Applied Latent Class Analysis*, Cambridge University Press.
- Herrmann, R., & Brewer, M. (2004). Why study identity and institutions. In R. Herrmann, T. Risse & M. Brewer (Eds.), *Transnational identities. Becoming European in the EU* (pp. 1-10). Rowman & Littlefield.
- Herrmann, R., Risse, T., & Brewer, M. (Eds.) (2004). *Transnational Identities. Becoming European in the European Union*. Rowman & Littlefield.
- Hobolt, S. B., & de Vries, C. E. (2016). Public support for European integration. *Annual Review of Political Science*, 19, 413–432. <http://dx.doi.org/10.1080/13501763.2016.1225785>
- Hooghe, L., & Marks, G. (2005). Calculation, community and cues: public opinion on European integration. *European Union Politics*, 6, 419–443. DOI: 10.1177/1465116505057816
- Mendez, C., & Batchler, J. (2017). European identity and citizen attitudes to cohesion policy: what do we know? COHESIFY Research Paper 1. <http://www.cohesify.eu/research-papers/>
- Muñoz, J., Torcal, M., & Bonet, E. (2011). Institutional trust and multilevel government in the European Union: Congruence or compensation?. *European Union Politics*, 12(4), 551-574. <https://doi.org/10.1177/1465116511419250>
- Peter, J. (2007). Media effects on attitudes toward European integration. In W. Van der Brug & C. Ven der Eijk (Eds.), *European elections and domestic politics* (pp. 131–144). Notre Dame University Press.
- Risse, T. (2003). The Euro between national and European identity. *Journal of European Public Policy*, 10(4), 487–505. <https://doi.org/10.1080/1350176032000101235>
- Risse, T. (2010). *A community of Europeans? Transnational identities and public spheres*. Cornell University Press.
- Risse, T. (2014). No demos? Identities and public spheres in the Euro crisis. *Journal of Common Market Studies*, 52(6), 1207–1215. <http://doi.org/10.1111/jcms.12189>
- Royuela, V. (2018). *Report on the construction of the CIEI indicator. Qualitative report with main findings from the survey and discussion of comparative results from the application of the indicator of perception in the different case study regions*. PERCEIVE project - Deliverable 2.3. <http://doi.org/10.6092/unibo/amsacta/5801>
- Skrondal, A., & Rabe-Hesketh, S. (2004). *Generalized latent variable modeling: multilevel, longitudinal and structural equation models*. Chapman and Hall/CRC.
- Tajfel, H. (1981). *Human groups and social categories*. Cambridge University Press.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of inter-group behaviour. In S. Worchel & L. W. Austin (Eds.), *Psychology of intergroup relations*. Nelson-Hall.
- Tosun, J. (2014). Absorption of regional funds: a comparative analysis, *Journal of Common Market Studies*, 52(2), 371-387. <https://doi.org/10.1111/jcms.12088>
- Verhaegen, S., Hooghe, M., & Quintelier, E. (2014). European identity and support for European integration: a matter of perceived economic benefits? *Kyklos*, 64(2), 295–314. <https://doi.org/10.1111/kykl.12055>

Verhaegen S., Hooghe, M., & Quintelier, E. (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>

Vermunt, J. K. (2003). Multilevel latent class models. *Sociological Methodology*, 33, 213-239. <https://doi.org/10.1111/j.0081-1750.2003.t01-1-00131.x>

Vermunt, J. K., & Magidson, J. (2016). *Technical guide for Latent GOLD 5.1: basic, advanced, and syntax*. Statistical Innovations Inc.

ORCID

Cristina Brasili <https://orcid.org/0000-0003-2529-0158>

Pinuccia Calia <https://orcid.org/0000-0002-6638-4081>

APPENDIX

TABLE A1.
Question wording and variables

Variable	Description (question from Perceive Survey)	Values
Awareness of EU policies	Q1: 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	Recoded: 0 None of these 1 Only local project 2 At least one among EU CP, EU RP, EU SF
Identification with Europe (Q9_3)	Q9: 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 the following: Q9_1: Your region; Q9_2: Your country; Q9_3: Europe	Recoded: 1 Not much (0-3) 2 Somewhat strongly (4-6) 3 Strongly (7-10)
Identification with Europe vs Country	Comparing Q9_3 to Q9_1 after recoding	1 Less 2 Equal 3 More
Effectiveness of EU (Q5_1)	Q5: How effective do you think the following institutions will be at dealing with the biggest problem in your region? Q5_1: The EU; Q5_2: National governing institutions; Q5_3: Regional/local Institutions	1 Not very effective 2 Somewhat effective 3 Very effective
Effectiveness of EU vs National governing institutions	Comparing Q5_1 to Q5_2	1 Less 2 Equal 3 More
Evaluation of EU membership	Q8. In general, do you think that (YOUR COUNTRY'S) EU membership is a good thing, a bad thing, neither good nor bad?	Recoded: 1 Good 0 Bad / Neither good or bad/ Not sure

TABLE A1. (continued)
Question wording and variables

Variable	Description	Values
Corruption in EU (Q16_1)	Q16. On a 0-10 scale, with '0' being that 'there is no corruption' and '10' being that corruption is widespread, how would you rate: Q16_1: The European Union; Q16_2: The national government; Q16_3: The region/local government?	Recoded: 1 Low (0-3) 2 Medium (4-6) 3 High (7-10)
Corruption in EU vs National government	Comparing Q16_1 to Q16_2	1 Less 2 Equal 3 More
Corruption in EU vs regional/local government	Comparing Q16_1 to Q16_3	1 Less 2 Equal 3 More
Vote in the EU elections	Q7. Have you voted in either of the last two EU parliamentary elections?	0 Neither 1 Once 2 Both 3 Don't know/RF
Support for Cohesion Policy	Q20: In your opinion, the EU should continue this policy, where wealthier countries contribute more, and poorer EU regions receive more funding? (Strongly agree; agree; disagree; strongly disagree; Don't know/ Refuse)	Recoded: 1 Agree; 2 Disagree; 3 D/K
GDP per capita	GDP per inhabitant in 2014 as percentage of EU average	Numerical value
Unemployment rate	Unemployment rate for population 20-64 years old in 2014	Numerical value
Absorption rate	Absorption rate of SF expenditures: ratio of SF expenditures up to 2013 to the SF allocation in the 2007-2013 period	Numerical value (0-1)
Structural Fund Expenditures, per-capita	Total expenditures over the years 2007-13 divided by the average population in a region in the years 2007-13	Numerical value (euros)
Quality of institution	European Index of Institutional Quality in 2013 (Normalized)	Numerical value (0-100)

TABLE A2.
Response percentage by country: Identification with Europe, Effectiveness of EU, Corruption in EU

Country	Identification with Europe			Effectiveness of EU			Corruption in EU		
	<i>Not strongly</i>	<i>Somewhat Strongly</i>	<i>Strongly</i>	<i>Not so effective</i>	<i>Somewhat effective</i>	<i>Very Effective</i>	<i>Low</i>	<i>Medium</i>	<i>High</i>
France	19.3	37.6	43.1	66.7	31.4	1.9	8.6	41.3	50.1
Bulgaria	18.1	27.6	54.3	31.7	42.1	26.2	23.3	41.4	35.3
Slovakia	7.1	19.1	73.8	31.9	48.3	19.8	4.9	34.8	60.3
Hungary	12.5	29.6	58.0	71.8	26.4	1.8	11.6	34.5	53.9
Romania	21.3	32.8	45.9	9.7	43.5	46.8	29.0	28.2	42.8
Italy	19.7	37.8	42.6	76.0	19.3	4.7	5.6	36.0	58.4
Netherland	19.9	37.8	42.3	45.6	44.5	9.9	10.3	43.7	46.0
Sweden	15.1	36.2	48.7	64.9	32.9	2.2	15.6	39.4	44.9
UK	22.7	26.1	51.1	61.6	26.1	12.2	18.1	40.6	41.3
Latvija	20.6	28.6	50.8	57.2	38.0	4.9	6.4	43.4	50.2
Poland	7.9	23.8	68.4	48.8	44.2	7.0	16.3	45.6	38.1
Spain	12.3	35.0	52.7	28.6	54.2	17.2	8.5	33.6	58.0
Germany	11.9	28.5	59.7	59.9	30.9	9.2	17.6	46.2	36.2
Estonia	17.5	42.2	40.3	50.7	43.2	6.2	16.9	47.0	36.1
Austria	15.6	22.4	62.0	65.1	25.9	9.0	17.6	42.4	40.1
Total	15.4	30.7	53.9	52.3	36.2	11.6	13.3	39.4	47.3

TABLE A3.
Response percentages by country: Awareness of Cohesion Policy, Evaluation of EU membership, Support to Cohesion Policy

Country	Awareness			EU membership		Support CP		
	<i>None</i>	<i>Only local project</i>	<i>CP-RP-SF</i>	<i>Bad thing</i>	<i>Good Thing</i>	<i>Agree</i>	<i>Not agree</i>	<i>D/K</i>
France	28.6	8.2	63.2	42.8	57.2	72.0	27.7	0.3
Bulgaria	7.8	30.9	61.3	43.8	56.2	78.2	18.5	3.3
Slovakia	1.3	13.7	85.0	34.2	65.8	91.1	8.8	0.1
Hungary	7.3	23.6	69.1	45.5	54.5	84.6	15.4	0.0
Romania	14.7	23.2	62.1	27.6	72.4	88.8	11.2	0.0
Italy	14.0	13.3	72.7	66.1	33.9	75.0	24.8	0.3
Netherland	53.9	4.5	41.6	53.2	46.9	66.6	32.7	0.8
Sweden	23.1	8.9	68.1	49.6	50.4	77.8	20.2	2.0
UK	47.0	7.0	46.0	38.0	62.0	73.3	26.0	0.8
Latvija	10.0	11.8	78.2	49.0	51.0	75.1	22.0	3.0
Poland	8.9	9.1	82.0	25.5	74.5	85.4	9.8	4.9
Spain	17.8	6.7	75.5	31.1	68.9	88.6	11.3	0.1
Germany	22.8	6.2	71.0	20.9	79.1	78.9	19.3	1.9
Estonia	13.3	13.6	73.1	38.8	61.2	73.2	20.1	6.8
Austria	18.6	4.6	76.8	31.3	68.7	72.6	27.2	0.2
Total	19.0	11.3	69.7	38.4	61.7	79.9	18.8	1.4

TABLE A4.
Profile table of citizens' clusters: cluster size and cluster-specific marginal probabilities

	Cluster 1 <i>Disappointed pro- Europe</i>	Cluster 2 <i>EU Deniers</i>	Cluster 3 <i>Confident Europeans</i>	Cluster 4 <i>Wary pro-Europe</i>	Cluster 5 <i>Disaffected Europeans</i>	Cluster 6 <i>Wary Cons- Europe</i>
Cluster Size	0.2727	0.1972	0.1752	0.1495	0.1056	0.0999
Indicators						
How strongly identify with Europe						
<i>Not much strongly</i>	0	0.4612	0.0362	0	0.2704	0.2857
<i>Somewhat</i>	0.0995	0.5387	0.0681	0.0726	0.7293	0.7142
<i>Strongly</i>	0.9005	0	0.8957	0.9273	0.0003	0.0001
Europe vs Country identification						
<i>Less</i>	0	0.6849	0	0	0.6716	0.7187
<i>Equal</i>	0.8595	0.2942	0.8271	0.8557	0.3193	0.2573
<i>More</i>	0.1405	0.0209	0.1729	0.1443	0.0091	0.0241
Effectiveness in solving problems						
<i>Not so Effective</i>	0.7413	0.9007	0.3498	0.0001	0.7966	0.0001
<i>Somewhat effective</i>	0.2587	0.0957	0.4656	0.6501	0.2033	0.7156
<i>Very effective</i>	0	0.0036	0.1845	0.3498	0	0.2843
EU vs National effectiveness						
<i>Less</i>	0.3386	0.3069	0.1694	0.0071	0.3654	0.0085
<i>Equal</i>	0.6614	0.6931	0.5138	0.4274	0.6346	0.4143
<i>More</i>	0	0	0.3168	0.5655	0	0.5772
Corruption in EU						
<i>Low</i>	0.082	0.0006	0.3341	0.0846	0.2302	0.1165
<i>Medium</i>	0.3462	0.1368	0.6659	0.2663	0.7697	0.3861
<i>High</i>	0.5718	0.8625	0	0.6491	0.0001	0.4974
EU vs National Corruption						
<i>Less</i>	0.0001	0	0.9998	0	0.5253	0.255
<i>Equal</i>	0.7792	0.729	0.0002	0.8458	0.4226	0.6135
<i>More</i>	0.2207	0.2709	0	0.1542	0.0522	0.1315
Vote						
<i>Neither</i>	0.2869	0.3916	0.2533	0.2642	0.3904	0.3718
<i>Once</i>	0.1481	0.1433	0.168	0.1755	0.1924	0.1797
<i>Both times</i>	0.5468	0.4456	0.5561	0.5423	0.3945	0.4181
<i>(d/k-refused)</i>	0.0182	0.0195	0.0227	0.018	0.0226	0.0304
Support for Cohesion policy						
<i>Agree</i>	0.8291	0.6238	0.9022	0.8845	0.7556	0.8007
<i>Disagree</i>	0.1576	0.3642	0.087	0.1061	0.2271	0.1832
<i>d/k</i>	0.0133	0.012	0.0108	0.0094	0.0173	0.0162
EU membership						
<i>Bad thing</i>	0.2751	0.7464	0.1743	0.1727	0.4786	0.4718
<i>Good Thing</i>	0.7249	0.2536	0.8257	0.8273	0.5214	0.5282
Awareness of Cohesion policy						
<i>None</i>	0.1819	0.2664	0.1019	0.1141	0.2578	0.2082
<i>only local project</i>	0.0863	0.1053	0.1291	0.1023	0.1078	0.1236
<i>Cohesion/regional policies</i>	0.7318	0.6283	0.769	0.7836	0.6344	0.6683

