



The Effects of Three Facets of National Identity and Other Socioeconomic Traits on Attitudes Towards Immigrants

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Abstract

The academic literature showed an increasing interest in studying the link between national identity and anti-immigrant sentiment. This work is based on ten countries from the International Social Survey Program (ISSP) dataset for two different waves: 2003 and 2013. The paper aims to analyse the influence of the three facets of national identity (nationalism, political patriotism, and cultural patriotism) and other socioeconomic traits on attitudes towards immigrants (ATI). Untried methods in social science based on the fuzzy-hybrid analysis (FHA) and the fuzzy clustering are used first to analyse citizens according to their levels of openness towards immigrants, nationalism, cultural patriotism, and political patriotism. Then, the ordered probit model is applied to thoroughly examine the intricate relationships connecting the three facets of national identity and individual sociodemographic characteristics with ATI. The results show that the national identity and cultural patriotism constructs negatively influence ATI, while political patriotism positively influences ATI. In addition, country, political orientation, age, religion, economic situation, gender, place of birth, principal status, and education are crucial factors that explain ATI.

Keywords Attitudes towards immigrants · National identity · Patriotism · Fuzzy-clustering analysis · Probit model

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Introduction

The latest migratory waves have developed a particular interest in researchers in studying the attitudes towards immigrants (ATI) due to a series of terrorist events, which began on September 11, 2001 (Miguel-Tobal et al., 2006; Bar-Tal et al., 2012; Huddy et al., 2005; Skitka et al., 2004; Ben-Ezra et al., 2015; Vasilopoulos et al., 2018). The Syrian and Afghan refugee crisis intensified the interest mainly focused on the upsurge of far-right nationalist-populist speeches. The nation's defence against the threat of immigrants has become the key point of the latest electoral success of extremist forces (Ekman, 2019).

There are not many studies in the literature that analyse the relationship between national identity and attitudes towards immigrants (Grigoryan & Ponizovskiy, 2018). Studies are limited to comparing the different aspects of national identity, but few of these analyse the influence of each construct on citizens' attitudes towards immigrants (Esses et al., 2006; Lindstam et al., 2021). The main aim of this study is to enrich the existing academic literature concerning the interplay between attitudes towards immigrants and national identity. It will be done by implementing an innovative methodology not often used in the social sciences. It will apply fuzzy-hybrid analysis (FHA) to estimate synthetic indicators of important latent variables such as national identity and attitudes towards immigrants. The approach has previously demonstrated its strength in diverse topics, including education (Nazari-Shirkouhi et al., 2020), transportation engineering (Chandran & Kandaswamy, 2016), and tourism (Martín & Román, 2017).

The study aims to answer several research questions that explore the dynamics underlying attitudes towards immigrants (ATI). Firstly, we investigate three facets of national identity found in previous studies, such as nationalism, political patriotism, and cultural patriotism, and whether each facet can influence anti-immigrant attitudes. Additionally, we analyse whether individual socioeconomic characteristics can shape citizens' attitudes towards immigrants. The study covers ten countries across two waves of the International Social Survey Program (ISPP) dataset—2003 and 2013. The countries included are Denmark, France, Germany, Ireland, Norway, Portugal, Russia, Spain, Great Britain, and the USA. The sample selection was made to discern impact variations across distinct cultural contexts. Therefore, the paper complements other studies (Davidov et al., 2018; Grigoryan & Ponizovskiy, 2018; Heath & Richards, 2020; Kunovich, 2009), and presents new interesting insights.

In sum, although ATI, nationalism, political patriotism, and cultural patriotism have been previously studied, very little is known about how all three facets of the national identity impact ATI. The current study remedies this gap in the literature on nationalism, political patriotism, cultural patriotism, and ATI. The next sections of the paper are as follows: the “The Context of the Study” section presents a brief theoretical background, the “Data” section shows the utilized dataset, the “Methodology” section provides an overview of the methodologies adopted, and the “Results” section presents the results obtained—finally, the “Discussion” and “Conclusions” sections offer the discussions and the conclusions of the study.

The Context of the Study

The Attitudes Towards Immigrants (ATI) Construct

Recent studies show that the focus on attitudes towards immigrants (ATI) is becoming more important during the last two decades. The escalation of terrorist attacks, such as 9/11 in New York, 2004 in Madrid, Charlie Hebdo, London 2005, Paris 2016, and many others, have reshaped citizens' anti-immigrant sentiment (Miguel-Tobal et al., 2006; Bar -Tal & Sharvit, 2004; Huddy et al., 2005; Skitka et al., 2004; Ben-Ezra et al., 2015; Vasilopoulos et al., 2018). The literature is quite extensive, and, in this section, we will try to set up a theoretical background for our study.

Nelsen and Guth (2003) argue that European ATI are linked to intolerance towards social diversity. However, intolerance is often not aimed at all immigrants. Yavçan (2013) highlights a substantial difference in ATI when they share socio-cultural and political characteristics with natives. She shows how European citizens tend to be less tolerant towards Turkish immigrants and show a positive attitude towards migration within the European Union, such as Italian or Polish immigrants. Therefore, citizens perceive immigration as a threat when they believe it can undermine their ethnic and cultural integrity (Tillman, 2013).

Ceobanu and Escandell (2010) show that nationhood can be a determining factor in citizens' perception of immigrants. Through a cross-national analysis, this theory has also been validated by Davidov et al. (2018). Both underline the presence of two European faces, one represented by the Eastern countries, which present negative ATI, and the other by the Western and Nordic countries, which tend to see immigrants more positively. Other characteristics that can shape ATI include immigration policy, the volume of immigrants, and the economic situation measured as GDP evolution or unemployment rate (Bail, 2008; Davidov et al., 2014; Heath & Richards, 2020).

Researchers have shown that ATI vary according to some sociological and political characteristics of individuals (Bessudnov, 2016). Welfare status, education, and political orientation can be important determinants of pro-attitudes towards immigrants (Bessudnov, 2016; Gorodzeisky et al., 2015). Martín and Indelicato (2021) show that political orientation strongly influences ATI. They show how right-wing individuals tend to perceive immigrants as a threat, while leftists often show a more positive attitude. Moreover, education also affects the anti-immigrant sentiment, and higher educated individuals tend to be correlated with positive ATI, while lower educated ones tend to show negative attitudes towards immigrants (Berg, 2015; Gang et al., 2002; Hainmueller & Hopkins, 2014).

According to Schlueter and Wagner (2008), religion is considered also a determinant factor on ATI. They point out that religiosity can be the driver of the group threat perception. In particular, they point out that Christians were more likely to advocate for the exclusion of ethnic groups. Regarding conservatives, they are more likely to express anti-immigrant sentiments (Gorodzeisky & Semyonov, 2016). Their work has also been replicated by McCann and Boateng (2020; Boateng et al., 2021), showing similar insights.

Others sociodemographic characteristics can affect the anti-immigrant sentiment. People that compete with immigrants in the labour market show more negative ATI. As analysed by various scholars, a higher unemployment rate and higher competition between natives and immigrants in the labour market set off higher discrimination against immigrants. Thus, a lower unemployment rate and lower competition between immigrants and natives for work are determinants to positive ATI (Algan et al., 2010; Büchel & Frick, 2004; Gorodzeisky & Semyonov, 2017; Heath & Brinbaum, 2007).

Brief Overview of the Facets of National Identity: Nationalism, Cultural, and Political Patriotism

National identity is a topic that has been studied extensively over time by various researchers (Grigoryan & Ponizovskiy, 2018; Kosterman & Feshbach, 1989; Roccas et al., 2008; Sidanius & Pratto, 2001; Spry & Hornsey, 2007). According to Tajfel (1981), national identity is an individual feeling of belonging to a social group (Tajfel, 1981). Therefore, national identity refers to a thermometer of the feeling of attachment to a national group or a cognitive awareness (Huddy, 2013; Huddy et al., 2007).

A strong sense of national identity is frequently intertwined with positive sentiments towards compatriots (Jackson & Smith, 1999; Mummendey et al., 2001; Simon et al., 1995). Extensive research on national identity underscores the inclination of individuals to distinguish their own groups from others, a phenomenon highlighted in studies by Turner et al. (1987) and Tajfel (1981). Consequently, this differentiation often gives rise to prejudiced attitudes towards external groups. In times of perceived threats, previously benign group identities can morph into more adversarial forms characterized by hostility towards outsiders. As a result, during periods of perceived national vulnerability, native citizens tend to display a heightened and more positively charged national identity among fellow compatriots, concurrently exhibiting less favourable dispositions towards foreigners (Huddy, 2013, 2016; Mummendey et al., 2001; Sniderman et al., 2004).

Scholars suggest that the perceived threat to a nation's integrity and cultural heritage can wield considerable influence as a national threat, giving rise to heightened antagonism and bolstering endorsement of xenophobic governmental measures (Huddy, 2013). This notion is corroborated by Sniderman et al. (2004), who present compelling empirical support. In their study, Dutch participants were exposed to various hypothetical immigration scenarios, revealing that resistance towards low-skilled immigrants was comparatively lower. This phenomenon is attributed to the fact that a robust sense of Dutch nationalism tends to amplify the perception that immigrants pose a cultural threat to the Netherlands (Sniderman et al., 2004).

In the literature, national identity is typically assessed using multi-item scales that encompass a range of elements. These elements include the sense of belonging to a nation, the usage of the pronoun “we” to refer to fellow citizens, as well as affective components that hold significance in the process of becoming a national citizen (Cinnirella, 1997; Huici et al., 1997; Mummendey et al., 2001). For instance, Citrin

et al. (2001) regard questions like “How important is being American to you?” and “I would prefer American citizenship over any other country” as pivotal items for the construct of nationalism. Sidanius et al. (1997) also incorporate factors such as the inclination to relocate from the country and the presence of sentiments attached to the place of one’s upbringing. Nonetheless, Huddy et al. (2007) categorize these elements as gauges of national attachment that neglect ideological content, thereby excluding alternative measures of national attachment like pride or favourable sentiments towards national symbols (Huddy et al., 2007).

Therefore, the “love to the nation” can be expressed in different ways. Kosterman and Feshbach (1989) address the distinction between nationalism and patriotism. They define nationalism as a positive feeling of their group and manifesting an attitude of national superiority concerning others. However, patriotism is distinguished by positive sentiment towards the nation without, however, having to oppose other external groups (de Figueiredo & Elkins, 2003; Feshbach, 1991; Kosterman & Feshbach, 1989; Kosterman & Feshbach, 1989; Roccas et al., 2008; Schatz et al., 1999; Sidanius, & Pratto, 2001; Spry & Hornsey, 2007).

According to Staerkle et al. (2005), patriotism plays a crucial role in maintaining social status within dominant groups. Immigrants may undergo two types of patriotism: blind patriotism, which involves uncritical support for the state, and constructive patriotism, which entails a critical evaluation of state practices (Schatz et al., 1999; Spry & Hornsey, 2007). Spry and Hornsey (2007) found that blind patriotism predicts less support for immigrants and cultural services. However, other studies have identified two types of national patriotism: cultural patriotism, or pride in elite conquest, and political patriotism, or pride in mass conquest (Fabrykant & Magun, 2016; Hjerm, 1998). Political pride is associated with high levels of trust in political institutions and a belief in a strong state that can protect its citizens. In contrast, cultural patriotism reflects pride in nationality based on shared history and ancestry, which can lead to hostile attitudes towards those without a similar background (Grigoryan & Ponizovskiy, 2018).

Grigoryan and Ponizovskiy (2018) highlight the presence of a gradual increase in nationalism and political patriotism in recent years. While indicators of cultural patriotism are unchanged, political patriotism is changing dynamically, as political patriotism is linked to pride in the country’s economic and political achievements. Thus, this large increase is most likely a reflection of the improved quality of life (Grigoryan & Ponizovskiy, 2018).

More recently, the intricate interplay between national identity and ATI has garnered significant attention within the field of migration studies. Scholars have approached this multifaceted relationship from diverse angles, aiming to untangle the intricacies that shape public perceptions and responses to foreign-born individuals (Acevedo & Meseguer, 2022; Ariely, 2021; Gagnon, 2023; Jha & Chakrabarty, 2023; Rapp, 2020; Thérová, 2023).

Rapp (2020) posits a theory that harmonious alignment between national identity and positive sentiments towards immigrants needs policy interventions to facilitate newcomers’ social participation within the host society. On the other hand, Esses and Hamilton (2021) address the evolving landscape of ATI, focusing on the context of the COVID-19 pandemic. This study illuminates the role played

by national attachment and perceived threat in shaping attitudes during times of crisis. By exploring sentiments in North America, the research provides insights into the adaptability of views concerning immigrants across different circumstances. Acevedo and Meseguer (2022) offers a unique and impactful examination of the various cultural and historical factors that shape Mexico's national identity and its intricate interactions with migration. The study contributes to a broader comprehension of how cultural perceptions and nationalistic sentiments can influence ATI, offering a nuanced perspective on a region that is pivotal in the global migration landscape. Specifically, the findings reveal that when individuals are prompted with cues emphasizing a strong and exclusive national identity, they demonstrate heightened levels of anti-immigrant sentiment. This result underscores the heightened attachment to a specific national identity might lead to more negative perceptions of immigrants, driven by concerns over cultural preservation, economic competition, or perceived threats.

Additionally, Jha and Chakrabarty (2023), Thérová (2023), and Gagnon (2023) delve into the multifaceted dimensions of national identity, shedding light on the cultural underpinnings that shape public sentiments towards immigrants in Assam, Poland, and Quebec, respectively. These studies delve into the complexities that arise when nationalistic sentiments clash with issues surrounding migrant populations, thus contributing to the discourse on the migrant-citizen conundrum. They scrutinize potential dual standards in public opinion regarding immigration and its link to national identity, offering valuable insights into how national identity can sway perceptions of immigrants.

The literature review contextualizes our study and channels it on two main hypotheses: (1) the three facets of national identity, namely nationalism, political, and cultural patriotism, do influence the citizens' attitudes towards immigrants; and (2) the results of alternative methodologies, such as fuzzy clustering analysis and ordered probit model, offer a complementary and solid view of what is already known, nationalists and cultural patriotism fuel negative influences on attitudes towards immigrants, as opposed to political patriotism.

Data

We use the International Social Survey Program's (ISSP) National Identity and Immigrants module, in 2003 and 2013. ISSP collected the data through various modes, including face-to-face interviews, telephone interviews, and web surveys. The choice of data collection mode can depend on the infrastructure and resources available in each country. The dataset includes a total of 27,873 participants across the two waves: 2003 ($N=14,096$) and 2013 ($N=13,777$). The total number of interviewees across the analysed countries: Denmark in 2013, 1322; Denmark in 2013, 1325; France in 2003, 1669; France in 2013, 2017; Germany in 2003, 1287; Germany in 2013, 1717; Ireland in 2003, 1065; Ireland in 2013, 1215; Norway in 2003, 1469; Norway in 2013, 1585; Portugal in 2003, 1600; Portugal in 2013, 1001; Russia in 2003, 2383; Russia in 2013, 1514; Spain in 2003, 1212; Spain in 2013, 1225; Great Britain in 2003, 873; Great Britain in 2013, 904; USA in 2003, 1,216;

USA in 2013, 1274. There are more respondents in 2003, than 2013, with among 51% of the sample. There were more respondents in 2003 than in 2013, with 51% of the sample. The sample profile tends to exhibit a moderate political opinion, with 57.53% identifying as liberals or having a moderate left–right orientation. Predominantly, the respondents identify themselves as Catholics, constituting 34.8% of the sample, while a significant portion has attained educational levels at the lower secondary (21.88%) and lower-level tertiary (25.88%) stages. Regarding occupational status, most are engaged in paid work (54%), while a notable segment is already retired (23%).

The choice of countries ensures a comprehensive drawing of diverse territories. Among the ten countries, we can explore the dynamic relationship between national identity and attitudes towards immigrants (ATI). Balancing between sample representativeness and the feasibility of addressing the empirical issue remains a perpetual challenge. Nevertheless, we opted for prudence in the study, restricting the selection of countries where outcomes could be more effectively comprehended.

In the following subsections, we will present an overview of the variables used in this study: the latent variables, the measure of the attitudes towards immigrants, the three dimensions of national identity and the socioeconomic characteristics (*or control variables*).

Latent Variables

We utilized six items to gauge ATI across two waves (2003 and 2013): (1) immigrants increase crime rates; (2) immigrants take jobs away of people born in [Country]; (3) legal immigrants should have the same rights; (4) immigrants are generally good for the economy; (5) immigrants bring new ideas and cultures; and (6) number of immigrants increase to country. The country refers to the nation being analysed. Respondents rated the items on a 5-point Likert scale, ranging from 1 “strongly agree” to 5 “strongly disagree.” We recorded all the items in the opposite direction, such that higher scores reflect a favourable outlook towards immigrants.

To investigate the structure of national identity, we used the 17 items of the survey that assessed various dimensions of nationalism and political and cultural patriotism. Drawing on previous literature (Fabrykant & Magun, 2016; Grigoryan, 2016; Hjerm, 1998), we identified a set of items that captured each of the three constructs.

The interviewees expressed their agreement or disagreement (on a scale from 1 to 4) with a series of statements that their country is better than other countries in one way or another. The items used in the analysis are detailed as follows: (1) things about [country] feel ashamed; (2) rather be a citizen of [country]; (3) world better place if people were more like the [country nationality]; (4) [country] is a better country than most other countries; (5) people should support country even if wrong; (6) well in international sports makes proud to be [country nationality]; (7) often less proud of [country] than like to be. These items are analysed as nationalism construct (Smith & Kim, 2006).

For the construct of political patriotism, participants were presented with a series of statements that assessed their level of national pride, to which they could indicate agreement or disagreement (on a scale from 1 to 4). This set of items,

which measures domain-specific national pride, is often regarded as a measure of patriotism since it lacks the comparative aspect of the initial set of items (Smith & Kim, 2006). We selected the following six items to indicate political patriotism as being proud of (8) the way democracy works; (9) its political influence in the world; (10) [country's] economic achievements; (11) its social security system; (12) fair treatment of all groups in society; (13) [country's] armed forces.

Regarding cultural patriotism, respondents indicated their agreement or disagreement (on a scale from 1 to 4) with four statements related to being proud of (14) its scientific and technological achievements; (15) its achievements in sports; (16) its achievements in the arts and literature; and (17) its history.

Control Variables

As scholars suggest, socio-demographic variables can predict Pro-Immigrants attitudes (Bail, 2008; Brenner & Fertig, 2006; McAllister, 2018; Raijman et al., 2008). Here, we consider 13 different covariates (Table 1). The first one is the country of interview. Then, political orientation is divided into five segments, from left to right, and expresses progressive, liberal, or conservative ideologies. Age is classified according to seven different segments from under 24 to over 75. Religions are grouped as No Religion, Catholic, Protestant, Other Christians, Jewish, and Other Religions, while Income is divided into low levels of income up to high incomes. In the study, we limit the analysis only to female and male genders, as reported by the ISSP, while the interviewees can be natives or foreigners residing in the country. The main status refers to the employment level which can be expressed as in paid work, unemployed, student, retired, and others. Other control variables were also considered, such as unilateralism position, the assiduousness of participation in religious events, the educational level, the position regarding whether minorities should keep their own traditions or adapt themselves into the larger society, and

Table 1 Control variables

Control variables
Wave
Country
Political orientation
Age
Religion
Income
Gender
Born in the country
Main status
Unilateralism
Attend at religious events
Education
Traditions
Multilateralism

multilateralism. Unilateralism and multilateralism are proxied by the answers given to the questions: countries should follow their own interest even in conflict, and the international bodies should enforce solutions.

Methodology

Fuzzy Set Theory Methods

The problem of representing some form of vagueness emerged in the mid-1900s in various disciplines, such as logic, linguistics, physics, and mathematics. Also important for the later developments of fuzzy set theory were the first attempts in the 1930s at a logical proposition with three truth values (Zadeh, 1965; Haack, 1979; Sakawa, 2013).

Fuzzy set theory (FST) overcomes the Boolean classic logic (true or false) and handles situations where elements can have different degrees of membership in a set (Zadeh, 1965). It also allows mathematical operators and programming to apply to the fuzzy domain. FST is used effectively to cope with vagueness in decision-making (Dubois, 1980; Kaya, 2014; Klir & Yuan, 1995; Ross, 2005; Zadeh, 1975; Zimmermann, 2011). There are different types of membership functions such as triangular, trapezoidal, sigmoid, and Gaussian. All membership functions can be used to model decision-making problems (Erdoğan & Kaya, 2016). The advantage of applying FST in MCDM is that there is no single objective function for measuring hidden concepts in the social sciences (Martín et al., 2019).

By employing the fuzzy set theory (FST), we address the inherent uncertainty within the responses obtained from the ISSP, implementing a systematic approach outlined below. Initially, we transform semantic or Likert ordinal scales into triangular fuzzy numbers (TFN) to catch the nuanced nature of the data. This process is enacted across two distinct ordinal scales utilized for assessing the social constructs: ATI and nationalism. In the case of ATI and nationalism, the following transformation of the 5-point scale in TFNs was employed: (1) disagree strongly (0,0,30); (2) disagree (20,30,40); (3) neither agree nor disagree (30,50,70); (4) agree (60,70,80); and (5) agree (70,100,100). Meanwhile, the transformation for political and cultural patriotism was made according to the following: (1) not proud at all (0,0,50); (2) not very proud (30,50,70); (3) somewhat proud (50,70,90); and (4) very proud (70,100,100). This systematic integration of FST allows us to grapple with the inherent ambiguity in responses, fostering a more nuanced and accurate analysis of the complex social constructs under investigation. It is evident that the TFN ranges and shapes diverge notably between the two transformations. However, this divergence is selected deliberately to maintain a high level of generalization. Every category offers a degree of ambiguous information, effectively encapsulating a range of meanings. We represent the sequence of successive ordinal semantic points using overlapping 3-tuples that align within specific intervals. TFN aggregation is facilitated by Fuzzy Set Logic Algebra. The algebra of TFNs is applied here to calculate the average fuzzy number of n TFNs $A_i = (a_1^{(i)}, a_2^{(i)}, a_3^{(i)}) (i = 1, 2, \dots, n)$. The properties of the algebra guarantee that the average of TFNs is also a TFN. Thus,

to manage the uncertainty and vagueness of the information appropriately (Kumar, 2017), the defuzzified value is obtained as follows:

$$\tilde{v}\tilde{A} = \frac{(a_1 + 2a_2 + a_3)}{4} \quad (1)$$

TOPSIS was first proposed by Hwang and Yoon (1981) and, in the study, is applied to the clarified matrix to calculate synthetic indicators of openness towards immigrants, national identity, and cultural and political patriotism. As all the items were recoded to associate higher values with greater openness to immigrants, nationalism, and political and cultural patriotism, we apply TOPSIS considering all items as values of benefit (Behzadian et al., 2012). Hence, we find the positive ideal solution from the maximum observed in the matrix. On the other hand, the negative ideal solution is characterized by the minimum. Mathematically, we measure the positive and negative ideal solutions as follows:

$$A^+ = \{(\max V_{ij} | j \in J), i = 1, \dots, m\} \quad (2)$$

$$A^- = \{(\min V_{ij} | j \in J), i = 1, 2, \dots, m\} \quad (3)$$

For $i = 1, \dots, 27,873$, and j depends on the criteria taken into consideration to calculate synthetic indicators of ATI, nationalism, and cultural and political patriotism. Therefore, by calculating the Euclidean distances between the observations and the ideal solutions, D_i^+ and D_i^- , we can calculate the synthetic indicators of openness towards immigrants, nationalism, and cultural and political patriotism as follows:

$$TOPSIS_i = \frac{D_i^-}{D_i^- + D_i^+} \quad (4)$$

$$i = 1, \dots, m$$

If the indicators are close to 1, the interviewees are more open to immigrants, tend to be more nationalist, or show a strong feeling of cultural or political patriotism. The logic of the TOPSIS indicates that when the indicator is higher, it is closer to the positive ideal solution and further away from the negative ideal solution (Indelicato et al., 2023).

Fuzzy clustering analysis treats our national identity constructs and ATI at the individual level (Cantillo et al., 2021). Thus, the membership function associates the degree of similarity between each citizen and a representative group profile (Kruse et al., 2007). A major benefit of adopting fuzzy cluster segmentation is that the method does not require splitting the sample into a single cluster or segment. Therefore, for each respondent, we obtain a membership function whose membership can determine the degree of similarity of each citizen with a representative profile for a group of citizens. The method is an extension of the bagged cluster algorithm introduced by Leisch. The fuzzy C-means algorithm for fuzzy data is adopted and can be expressed as follows:

$$\begin{aligned}
 \min : & \sum_{i=1}^n \sum_{c=1}^C u_{ic}^m d_F^2(\tilde{x}_i, \tilde{p}_c) = \sum_{i=1}^n u_{ic}^m [w_2^2 \|a_2^i - p_2^c\|^2 + w_1^2 (\|a_1^i - p_1^c\| + \|a_3^i - p_3^c\|)] \\
 \text{s.t.} & \\
 m > 1, & u_{ic} \geq 0, \sum_{c=1}^C u_{ic} = 1, w_1 \geq w_2 \geq 0, w_1 + w_2 = 1
 \end{aligned}
 \tag{5}$$

where $d_F^2(\tilde{x}_i, \tilde{p}_c)$ represent the squared fuzzy distance between the i th citizen and the profile of the representative citizen $\tilde{x}_i \equiv \{(a_{1ik} a_{2ik} a_{3ik}) : k = 1 \dots K\}$ where the vector represents the TFN assigned to the information provided by the i -th citizen. The TFN provided by the representative citizen of the c th cluster are $\tilde{p}_c \equiv \{(p_{1ck} p_{2ck} p_{3ck}) : k = 1 \dots K\}$; $\|a_2^i - p_2^c\|^2$ is the squared Euclidian distances between the centers of the TFN vectors of the i th citizen and the representative citizen of the c th cluster. $\|a_1^i - p_1^c\|^2$ and $\|a_3^i - p_3^c\|^2$ represent the squared Euclidian distances between the left and right extreme components of the TFN vectors of the i th citizen and the representative citizen of the c th cluster, respectively, while $w_1 \geq w_2 \geq 0$ are suitable weights for the centre and extreme components for the fuzzy distance considered; $m > 1$ is a weighted exponent that controls the fuzziness of the obtained partition; u_{ic} gives the membership degree of the i th resident in the c th cluster. The discussion of cluster validation and cluster profiles is omitted, and interested readers have referred again to D’Urso et al., (2013, 2015, 2016).

Ordered Probit Model

This section provides a comprehensive theoretical overview of the ordered probit model. This analytical framework enables us to investigate the degree to which attitudes towards immigrants (ATI) are influenced by variables such as nationalism, patriotism, and sociodemographic factors—as previously outlined. The ordered probit model is a valid instrument for statistical examination when dealing with ordinal survey responses (Daykin & Moffatt, 2002). Thanks to their versatility, ordered probit models find relevance across a spectrum of disciplines within the realm of social sciences. A fundamental characteristic of these models is mapping from an underlying naturally ordered scale of preferences to a discrete and orderly observed outcome (Aitchison & Silvey, 1957; Snell, 1964; Walker & Duncan, 1967). This approach provides a potent methodology for delving into the intricate dynamics underpinning the relationships at hand.

Let y_i be the individual value i of opening towards immigrants and suppose that this can assume one of the integer values $1, 2, 3, \dots, J$. Let y^* be the underlying latent variable representing the propensity of respondent i to be more open towards immigrants. Let \mathbf{x} be the vector that includes the three facets of social constructs and the socio-demographic covariates relevant to explain the attitude towards immigrants. The ordered probit model is based on the assumption that y^* linearly depends on \mathbf{x} , as follows:

$$\begin{aligned}
 y^* &= \mathbf{x}\beta + \varepsilon \\
 \varepsilon &\sim N(0, 1)
 \end{aligned}
 \tag{6}$$

where y^* is not observed, \mathbf{x} stands for the regressors vector, and we assume that ε is normally distributed across observations with mean and variance zero and one. The relationship between y^* and the observed variable y is given by:

$$\begin{cases} y = 0 & \text{if } y^* \leq 0 \\ y = 1 & \text{if } 0 < y^* \leq \mu_1 \\ y = 2 & \text{if } \mu_1 < y^* \leq \mu_2 \\ \dots & \\ y = J & \text{if } \mu_{J-1} < y^* \leq \mu_J \end{cases} \quad (7)$$

The μ is unknown parameters that are estimated with β . The model estimation is done applying maximum likelihood estimation (MLE) to estimate this model (Greene, 2003). The marginal effects are measured as follows:

$$\frac{dPr(Y = j)}{dx_r} \quad (8)$$

where r stands for the regressor $r = 1, \dots, R$.

In this study, ATI will be our dependent variable. TOPSIS results on nationalism, cultural patriotism, and political patriotism will be regarded as regressors. We also consider country, political orientation, age, religion, income, main status, gender, cultural interest, religiosity, education, and traditions as covariates to the analysis.

Results

ATI and National Identity profiles

By using fuzzy cluster analysis, we have been able to identify distinct profiles for every construct examined, including attitudes towards immigrants (ATI) and the three dimensions of national identity — nationalism, cultural patriotism, and political patriotism. These profiles consist of three categories which are “most,” “intermediate,” and “least.” The “most” profile is indicative of respondents who are more open towards immigrants, have a stronger sense of nationalism and patriotism. Conversely, the “least” profile pertains to individuals who display less openness to immigrants, lack nationalism, and have diminished patriotic sentiment. The “intermediate” profile falls in between these two extremes and represents a more balanced stance within each construct analysed.

Table 2 shows that individuals who are more open to immigrants are represented by those who consistently assigned the highest score of 5 to all items within their respective scale. On the contrary, those who are less receptive to immigration uniformly assigned the minimum score of 1 across all items. Meanwhile, the intermediate group took a more measured stance: assigning a score of 2 to items regarding immigrant-related crime increase and work competition, a score of 3 to items addressing the enriching influence of immigrant ideas and cultures, and

Table 2 Fuzzy cluster profiles

ATI	Most	Least	Inter	Nationalism	Most	Least	Inter
Increase crime rates	5	1	2	Feel ashamed	5	1	5
Immigrants take jobs	5	1	2	Rather be a citizen	5	1	1
Should have same rights	5	1	2	World better place	5	1	5
Good for economy	5	1	4	Better country than most other	5	1	5
Bring new ideas and cultures	5	1	3	Support country even if wrong	5	1	1
Increase to country	5	1	4	Well in sports	5	1	3
				Often less proud than like to be	5	1	1
P Patr	Most	Least	Inter	C Patr	Most	Least	Inter
Way democracy works	4	1	2	Scientific and technological	4	1	3
Political influence	4	1	3	Achievements in sports	4	1	3
Economic achievements	4	1	2	Arts and literature	4	1	3
Social security system	4	1	3	History	4	1	3
Fair treatment	4	1	3				
Armed forces	4	1	3				

ATI, attitudes towards immigrants criteria; *nationalism*, nationalism criteria; *P Patr.*, political patriotism criteria; *C Patr.*, cultural patriotism criteria

a score of 4 to items relating to the economic benefits of immigration and the country’s immigrant population growth. Overall, the table highlights the different attitudes towards immigration held by different groups of people.

The construct of nationalism, similar to the ATI, defines respondents with a strong nationalist sentiment to those who answered with a 5 to all questions, while those who answered with 1 are defined as non-nationalists. Intermediate nationalists are more moderate than the “most” group, as they answered with 1 to the related questions “Often less proud than they would like to be” and “they support the country even if they are wrong” and with 3 to the question related to international pride in the sport.

The political patriots answered with a 4 to all the questions in the correspondent form, while the less proud ones answered all the questions with a 1. The intermediates, in this case, are characterized by being more moderate in all the questions, as they answered with a 3 to all the questions, except for the item on the level of democracy and economic results, to which they answered with a 2. Cultural patriotism, like the other constructs, is similarly characterized by extreme observations in the most and the least profiles, and the intermediate profile is characterized by being moderate in all the questions, with a 3 to all the questions.

Figure 1 shows the ternary plots for (a) ATI, (b) nationalism, (c) political patriotism, and (d) cultural patriotism. Citizens most open to immigrants are represented graphically by the triangle at the bottom left of the graph (a) and represent 16.6% of the sample, while opponents to immigration are represented by the upper part of the triangle of the graph (a) and account for 20.6%. As is evident, most citizens result to be more moderate on this issue, given the strong density of the right side of the graph (a) which is numerically composed of 62.9% of

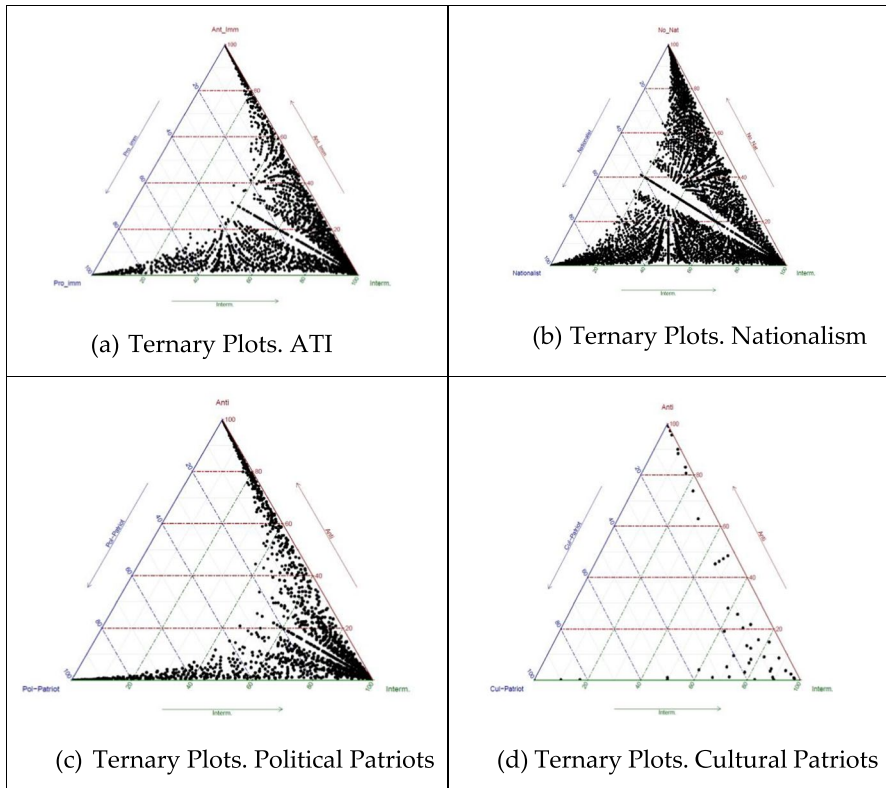


Fig. 1 Ternary plots

the interviewees. Regarding the three facets, expressed as nationalism and political and cultural patriotism, the moderate group is overrepresented with 51.3%, 62.6%, and 68.0% for the constructs of nationalism, political patriotism, and cultural patriotism, respectively.

National Identity Effects on ATI

The study aims to analyse the main drivers that determine positive (or negative) ATI taking into account three important facets of the national identity, such as nationalism and cultural and political patriotism. Thus, the synthetic indicators for the four social constructs were used to transform the nominal indices into categorical variables according to three percentiles (0.25, 0.50, and 0.75). Therefore, nationalism (- -) refers to the lowest values of the synthetic indicator, that is those that are lower than the percentile 0.25. Meanwhile, nationalism (+ +) refers to the highest values. Likewise, we group the indicators of political and cultural patriotism and the dependent variable ATI.

Factors Influencing ATI

Table 3 shows the results of the ordered probit analysis. The study includes 17 covariates, but gender and the assiduousness of participation in religious events did not result to have statistically significant effects. The year variable appears to influence the sentiment towards immigrants. Indeed, from 2003 to 2013 citizens seem to show more positive attitudes towards immigrants. At the country level, most of the countries analysed appear to have positive attitudes towards immigrants. However, Russia and Norway result to have negative ATI. Furthermore, the citizen's political orientation can positively or negatively influence the ATI. Indeed, being left-wing and liberal positively influences the attitudes of citizens towards immigrants, while the right political orientation negatively affects the ATI. The age of the respondents does not appear to be a significant predictor, except for the youngest age group (24 years old or under) of our sample which has a negative influence on anti-immigrant sentiment. Likewise, lower levels of income affect negatively ATI, and the higher incomes have a more positive influence on citizens' ATIs. Being a native or foreign citizen turns out to be a significant predictor in the study of the ATI, and our results show that being a native citizen negatively affects the sentiment towards immigrants, while being a foreigner positively affects the ATI. The main status of citizens appears to be a key factor in our study for the retired and student groups. The first group has a negative ATI, while students are more open towards immigrants. The level of education also plays an important role in the study of attitudes towards immigrants. Indeed, less educated citizens appear to have negative attitudes towards immigrants, unlike citizens with high levels of education who are more favourable to newcomers. Furthermore, unilateralism and multilateralism are significant drivers in the study of ATI's determinants. Thus, unilateralism proxied by the support that the country should follow its own interests even in conflicts negatively affects ATI, while preferring international organizations to impose solutions positively affects ATI.

Furthermore, the study analyses the influence of national identity in its three facets, nationalism, political patriotism, and cultural patriotism, on citizens' attitudes towards immigrants. The results show that being a nationalist negatively affects attitudes towards immigrants, while citizens who do not express a nationalist sentiment are more open to immigrants. Political patriotism plays an inverse role to nationalism as high levels of political patriotism positively influence attitudes towards immigrants, while citizens who are not political patriots appear to be more anti-immigrants. Finally, cultural patriotism is only a significant predictor of the model for the group of the most cultural patriots who tend to be more anti-immigrant.

Marginal Effects on Pro-Immigrant Attitudes

Table 4 provides the marginal effects on attitudes towards immigrants for the category ATI++, which is the category of those who have a more pro-immigrant attitude, and for that denominated as pro-immigrants. The table shows that Ireland, the USA, France, and Denmark show more positive attitudes towards immigrants

Table 3 Ordered probit model

Variable	Estimate	Std..error	t.value	Pr...t.	disc
2003	-0.04022142	0.00773986	-5.19666221	2.029E-07	***
2013	0.04115273	0.00791907	5.19666221	2.029E-07	***
Denmark	0.19147528	0.02859438	6.69625485	2.1383E-11	***
France	0.1946083	0.02168835	8.97294183	2.887E-19	***
Germany	0.01276005	0.02362861	0.54002544	0.58917949	
Ireland	0.25222235	0.02966515	8.50231214	1.8585E-17	***
Norway	-0.06769435	0.02647162	-2.55724241	0.01055057	*
Portugal	0.00798633	0.02913366	0.27412725	0.78398683	
Russia	-0.56339857	0.03327191	-16.9331588	2.5625E-64	***
Spain	0.01268442	0.02802014	0.45268948	0.65077235	
Great Britain	-0.02355813	0.04506661	-0.52274007	0.60115515	
USA	0.22286015	0.02672787	8.33811783	7.5482E-17	***
Far left	0.13799891	0.03094627	4.45930671	8.2225E-06	***
Left-centre	0.13798284	0.01501281	9.19100645	3.8918E-20	***
Centre-liberal	0.04528394	0.01752306	2.58424748	0.00975917	**
Right	-0.11575225	0.01536995	-7.53107632	5.0324E-14	***
Far right	-0.45612202	0.04731482	-9.64015192	5.4108E-22	***
24 years or under	-0.11103322	0.0428946	-2.58851306	0.00963913	**
25-34 years	-0.04119866	0.02126879	-1.93704766	0.05273952	
35-44 years	0.02205903	0.01787548	1.23403829	0.21718864	
45-54 years	0.01599534	0.01687868	0.94766525	0.3432999	
55-64 years	0.01134454	0.01661536	0.68277425	0.4947495	
65-74 years	-0.00150814	0.02114175	-0.07133487	0.94313124	
75 years or over	0.01155472	0.02721005	0.42464903	0.67109255	
No religion	0.09140969	0.01728812	5.28742823	1.2405E-07	***
Catholic	-0.08763285	0.01521098	-5.76115693	8.3539E-09	***
Protestant	-0.03192976	0.01805154	-1.76881023	0.07692555	
Other Christians	0.08420408	0.03142263	2.67972726	0.00736822	**
Jewish	0.17281501	0.12308438	1.40403689	0.16030786	
Islamic	0.40274657	0.05711331	7.05171107	1.7673E-12	***
Other religions	0.12609246	0.06893411	1.82917362	0.0673736	
inc_Bottom	-0.12515758	0.04609146	-2.71541777	0.00661922	**
Inc2	-0.04543624	0.04030328	-1.12735821	0.25959106	
Inc3	-0.04143736	0.02725351	-1.52044102	0.12840017	
Inc4	0.02107975	0.02302856	0.91537449	0.35999507	
Inc5	0.00988182	0.01633138	0.60508154	0.54512482	
Inc6	-0.0103343	0.01417038	-0.72928879	0.46582503	
Inc7	0.01566367	0.01944733	0.80544078	0.42056537	
Inc8	0.07118367	0.02537343	2.8054418	0.00502477	**
Inc9	0.10383147	0.05326597	1.949302	0.05125937	
Inc high	0.07033335	0.05671134	1.24019907	0.21490177	
Male	-0.00551162	0.00839195	-0.65677468	0.51132581	

Table 3 (continued)

Variable	Estimate	Std..error	t.value	Pr...t.	disc
Female	0.00478383	0.00697316	0.68603462	0.49269128	
Citizen (Y)	-0.01258692	0.00162209	-7.75970377	8.5128E-15	***
Citizen (N)	0.32672664	0.03887053	8.40551036	4.26E-17	***
In paid work	0.01607296	0.00920424	1.74625601	0.08076648	
Unemployed	-0.01392628	0.03131877	-0.4446624	0.65656375	
Student	0.16265319	0.03713336	4.38024492	1.1855E-05	***
Retired	-0.05740886	0.02248033	-2.55373725	0.01065736	*
Others	-0.04603207	0.02451422	-1.87777032	0.06041259	
Disagree strongly (CI)	0.31584507	0.03204427	9.85652111	6.4237E-23	***
Disagree (CI)	0.1168461	0.01528159	7.64620105	2.07E-14	***
Indifferent (CI)	0.06004433	0.01480543	4.05556123	5.0014E-05	***
Agree (CI)	-0.02230346	0.01059449	-2.10519356	0.03527446	*
Agree strongly (CI)	-0.29059728	0.01870574	-15.5351948	2.0046E-54	***
Never	-0.02099432	0.01350513	-1.55454366	0.12005479	
Once a year or less	0.00407372	0.01189069	0.34259773	0.73190111	
Several times a year	0.00056475	0.01712684	0.03297438	0.97369502	
One to three times a month	0.01553314	0.02414902	0.64322035	0.52008113	
Once or several times a week	0.04052174	0.0214905	1.88556569	0.0593535	
No formal education	-0.17596306	0.04322877	-4.07050843	4.6911E-05	***
Primary school	-0.17269043	0.03272131	-5.27761349	1.3088E-07	***
Lower secondary	-0.15736205	0.01355646	-11.6079019	3.7572E-31	***
Upper secondary	-0.01202038	0.01464047	-0.82103798	0.41162463	
Post secondary	0.01285278	0.01804299	0.71234234	0.47625281	
Lower-level tertiary	0.22946674	0.01406687	16.312571	8.0339E-60	***
Maintain traditions	0.13504314	0.01239895	10.8914993	1.2654E-27	***
Adapt into larger society	-0.09643766	0.00716927	-13.4515291	3.0157E-41	***
Disagree strongly (Int)	0.06902718	0.04129701	1.67148138	0.09462663	
Disagree (Int)	-0.07037127	0.02373498	-2.96487598	0.00302805	**
Indifferent (Int)	-0.01029176	0.01731207	-0.59448489	0.55218784	
Agree (Int)	0.01777155	0.00868681	2.04580837	0.04077523	*
Agree Strongly (Int)	0.02478603	0.01481174	1.67340414	0.09424776	
Nationalism (- -)	0.19790296	0.02075961	9.53307617	1.5269E-21	***
Nationalism (-)	0.03353639	0.0174758	1.91901933	0.05498189	
Nationalism (+)	-0.02920837	0.00684575	-4.26664348	1.9844E-05	***
Nationalism (++)	-0.07470375	0.01648232	-4.53235526	5.833E-06	***
Political patriotism (- -)	-0.18287187	0.02025339	-9.02919817	1.7293E-19	***
Political patriotism (-)	-0.02275827	0.06257577	-0.36369145	0.71608843	
Political patriotism (+)	0.00681203	0.00505034	1.34882423	0.17739343	
Political patriotism (++)	0.15236732	0.0198156	7.68925919	1.4799E-14	***
Cultural patriotism (- -)	-0.01743343	0.04590318	-0.37978703	0.70410351	
Cultural patriotism (-)	0.024252	0.01794739	1.35128308	0.17660477	
Cultural patriotism (+)	0.00501327	0.00562953	0.89052966	0.37318155	

Table 3 (continued)

Variable	Estimate	Std..error	t.value	Pr...t.	disc
Cultural patriotism (++)	-0.03601708	0.01724766	-2.08822991	0.0367771	*
Threshold (1->2)	-1.28074275	0.01038627	-123.311084	0	***
Threshold (2->3)	-1.05245627	0.00946303	-111.217657	0	***
Threshold (3->4)	1.36755322	0.01111063	123.085079	0	***

than the average citizen of the sample as in all the cases the marginal effect is higher than 3%. On the other hand, Russia and Norway appear to be the countries that have fewer pro-immigrant citizens, -8.8 and -1.1%, respectively.

The political orientation appears to be divisive on citizens' pro-immigrant sentiment. Those who support centre-liberal, left, or far-left political options are more pro-immigrant than the average with marginal effects of 0.7, 2.2, and 2.2%, respectively. On the other hand, marginal effects of citizens of the right and far-right political options are -1.8 and -7.1%. Regarding the age, young people 24 years or under are 1.74% less likely to have a pro-immigrant attitude than the average citizen.

There are also differences between citizens' religions. Non-Christian religions are more likely to be pro-immigrants. It is interesting that Muslims and agnostics show the following marginal effects 6.3 and 1.4%. On the other hand, Catholics and Protestants show significant and negative marginal effects, -1.4 and -0.5%, respectively. Among the income levels, the results show that high-income citizens (income 8 category) show a positive marginal effect (1.1%) to be pro-immigrant and the low-income group a negative marginal effect (-2%). The citizenship covariate presents also dual results as those who do not possess the citizenship are more pro-immigrant than the average with 5.1% of marginal effect, and the contrary effect is observed for national citizens who are less likely to be pro-immigrant by -0.2%. The results for the occupation are also very interesting as students and in-paid work are more likely to be pro-immigrants with respective marginal effects of 2.5 and 0.3%, and retired citizens are less likely to be pro-immigrants (-0.9%).

Furthermore, it is highlighted that citizens' position on multilateralism and unilateralism is also an important driver that determines the likelihood of being pro-immigrant. Thus, unilateralists, proxied by agreeing or agreeing strongly with the fact that a country should follow its own interest even if conflict, are less likely to be pro-immigrants with -4.6 and -0.3% as the respective negative marginal effects. On the other hand, those who are indifferent, disagree or disagree strongly are more likely to be pro-immigrants than the average citizen by 0.9, 1.8, and 4.9%, respectively. Multilateralism results based on the Likert responses to a country should follow decisions of international organizations show a similar duality to the one explained above, but the magnitude is lower. Thus, the citizens who disagree are less likely to be pro-immigrants and those who agree or agree strongly are more likely to be pro-immigrants. The marginal effects for the three commented groups are -1.1, 0.3 and 0.4%, respectively.

Table 4 Ordered probit model — marginal effects

Variable	ProImm	Std..error.3	t.value.3	Pr...t...3	disc
2003	-0.006298807	0.001213479	-5.190702168	2.09503E-07	***
2013	0.006444653	0.001241576	5.190702168	2.09503E-07	***
Denmark	0.029985661	0.004487062	6.682693509	2.3459E-11	***
France	0.030476301	0.003409856	8.937708163	3.97325E-19	***
Germany	0.001998266	0.003700374	0.540017358	0.589185062	
Ireland	0.039498852	0.004660834	8.474631246	2.35825E-17	***
Norway	-0.010601158	0.004146586	-2.556599225	0.010570092	*
Portugal	0.001250685	0.004562523	0.274121446	0.783991294	
Russia	-0.088230074	0.005281934	-16.70412335	1.22312E-62	***
Spain	0.001986422	0.004388002	0.452694049	0.650769065	
Great Britain	-0.00368928	0.007057406	-0.522753023	0.601146135	
USA	0.034900635	0.004195828	8.317937119	8.95075E-17	***
Far left	0.021611084	0.0048507	4.455250654	8.37952E-06	***
Left-centre	0.021608567	0.002359869	9.156679671	5.35186E-20	***
Centre-liberal	0.007091614	0.002745048	2.583420513	0.009782601	**
Right	-0.018127184	0.002412008	-7.515392717	5.67403E-14	***
Far right	-0.071430213	0.007444579	-9.594929247	8.39747E-22	***
24 years or under	-0.017388169	0.006719183	-2.587839835	0.009657988	**
25–34 years	-0.006451846	0.003331282	-1.936745555	0.052776454	
35–44 years	0.003454516	0.002799554	1.233952564	0.217220581	
45–54 years	0.002504923	0.002643377	0.947622139	0.343321852	
55–64 years	0.001776593	0.002602004	0.682778609	0.494746748	
65–74 years	-0.00023618	0.003310871	-0.071334809	0.943131292	
75 years or over	0.001809507	0.004261259	0.424641486	0.671098046	
No religion	0.014315059	0.002710715	5.280915392	1.2854E-07	***
Catholic	-0.013723593	0.002386122	-5.75142099	8.84964E-09	***
Protestant	-0.005000305	0.002827102	-1.768703755	0.076943325	
Other Christians	0.013186636	0.004922207	2.679009076	0.007384039	**
Jewish	0.027063401	0.019278461	1.403815386	0.160373831	
Islamic	0.063071441	0.008967137	7.033620544	2.01242E-12	***
Other religions	0.019746494	0.010796744	1.828930556	0.067410012	
inc_Bottom	-0.01960009	0.007223307	-2.713451042	0.006658641	**
Inc2	-0.007115464	0.006312294	-1.127239095	0.259641405	
Inc3	-0.006489227	0.004268436	-1.520282112	0.128440088	
Inc4	0.003301159	0.003606683	0.915289551	0.360039643	
Inc5	0.001547525	0.002557628	0.605062609	0.545137397	
Inc6	-0.001618385	0.002219104	-0.729296702	0.465820189	
Inc7	0.002452983	0.003045581	0.805423723	0.420575207	
Inc8	0.011147598	0.003975079	2.804371567	0.005041477	**
Inc9	0.01626035	0.008342763	1.949036626	0.051291051	
Inc high	0.011014435	0.008881776	1.240116188	0.214932422	
Male	-0.000863138	0.001314267	-0.656744896	0.511344961	
Female	0.000749163	0.001092072	0.686001744	0.492712009	

Table 4 (continued)

Variable	ProImm	Std..error.3	t.value.3	Pr...t...3	disc
Citizen (Y)	-0.001971153	0.000254725	-7.738368537	1.00701E-14	***
Citizen (N)	0.051166469	0.006107108	8.378182664	5.37512E-17	***
In paid work	0.002517078	0.001441662	1.745956292	0.080818547	
Unemployed	-0.002180901	0.004904699	-0.444655555	0.656568693	
Student	0.025472027	0.005819932	4.376687764	1.20496E-05	***
Retired	-0.008990417	0.003521665	-2.552887801	0.01068339	*
Others	-0.007208774	0.00383948	-1.877539255	0.060444222	
Disagree strongly (CI)	0.049462379	0.005044621	9.80497387	1.07175E-22	***
Disagree (CI)	0.018298484	0.00239934	7.626464813	2.41279E-14	***
Indifferent (CI)	0.00940314	0.002320718	4.051823351	5.082E-05	***
Agree (CI)	-0.003492795	0.001659148	-2.105174004	0.035276164	*
Agree strongly (CI)	-0.045508493	0.002969005	-15.32785965	4.98131E-53	***
Never	-0.00328778	0.002115233	-1.55433478	0.120104582	
Once a year or less	0.000637958	0.00186215	0.342592345	0.731905162	
Several times a year	8.84412E-05	0.00268212	0.032974373	0.973695024	
One to three times a month	0.002432541	0.003781888	0.643208101	0.520089078	
Once or several times a week	0.006345839	0.003365968	1.885293981	0.059390158	
No formal education	-0.027556395	0.006774472	-4.067681319	4.74833E-05	***
Primary school	-0.027043891	0.005129389	-5.27234154	1.34694E-07	***
Lower secondary	-0.024643416	0.002134745	-11.54396207	7.91916E-31	***
Upper secondary	-0.001882431	0.002292817	-0.821012278	0.411639275	
Post secondary	0.002012788	0.002825594	0.712341804	0.476253143	
Lower-level tertiary	0.035935249	0.002227163	16.13498654	1.44839E-58	***
Maintain traditions	0.021148201	0.001952033	10.83393635	2.37712E-27	***
Adapt into larger society	-0.015102455	0.001131339	-13.34918536	1.19751E-40	***
Disagree strongly (Int)	0.010809884	0.006467781	1.671343692	0.094653811	
Disagree (Int)	-0.011020372	0.003718407	-2.963734922	0.0030393	**
Indifferent (Int)	-0.001611724	0.002711068	-0.594497825	0.552179197	
Agree (Int)	0.002783084	0.001360786	2.045203047	0.040834844	*
Agree strongly (Int)	0.003881574	0.002319596	1.673383772	0.09425177	
Nationalism (- -)	0.030992257	0.003264997	9.492276964	2.26042E-21	***
Nationalism (-)	0.005251909	0.002737097	1.918787948	0.055011176	
Nationalism (+)	-0.004574127	0.00107292	-4.263249001	2.01476E-05	***
Nationalism (+ +)	-0.011698853	0.002583637	-4.528055555	5.95289E-06	***
Political patriotism (- -)	-0.028638337	0.003188205	-8.98259088	2.64464E-19	***
Political patriotism (-)	-0.00356402	0.009799654	-0.363688385	0.716090717	
Political patriotism (+)	0.001066786	0.000791106	1.348474624	0.177505776	
Political patriotism (+ +)	0.023861224	0.003111802	7.667976613	1.74731E-14	***
Cultural patriotism (- -)	-0.002730133	0.007188711	-0.379780652	0.704108246	
Cultural patriotism (-)	0.003797944	0.002810849	1.351173045	0.176640007	
Cultural patriotism (+)	0.000785094	0.000881662	0.890470018	0.37321356	
Cultural patriotism (+ +)	-0.005640393	0.00270175	-2.087681136	0.036826608	*

The educational level plays also a dual role as those who do not have formal education or have primary school or lower secondary are less likely to be pro-immigrants by -2.8 , -2.7 , and -2.5% , respectively, and those who have a lower tertiary level are more likely to be pro-immigrants by 3.6% . Regarding the respect for immigrants' traditions, results show that the citizens showing more respect for the immigrants' tradition maintenance are more likely to be pro-immigrants over those who want them to adapt to the host society who are less likely to be pro-immigrants. The marginal effects for both groups are 2.1 and -1.5% , respectively.

The section ends presenting the results of the three national identity facets. It can be seen that the two nationalist groups ($++$ and $+$) are less likely to be pro-immigrants by -1.2 and -0.5% . On the other hand, the two no nationalist groups ($-$ and $--$) are more likely to be pro-immigrants by 0.5 and 3.1% . Regarding the other two facets namely political and cultural patriotism, results show that pro-immigrant's behaviour is less determined by them than in the case of nationalism as from the twelve different categories, there are only three groups that present significant marginal effects: (1) political patriotism ($-$); (2) political patriotism ($++$); and (3) cultural patriotism ($++$). The first and third groups are less likely to be pro-immigrants by -2.9 and -0.6% , respectively, meanwhile the second group is more likely to be pro-immigrant by 2.4% . It is interesting to observe that cultural and political patriots behave in opposite directions regarding being pro-immigrant.

Discussion

The study presents an alternative approach to those used in the literature to analyse the relationship between ATI and the different facets of national identity. Nationalism, cultural patriotism, and political patriotism were obtained from the corresponding ISSP modules in two different waves, 2003 and 2013.

The inclination of specific individuals to prioritize their nation and ethnic identity over others often stems from a perceived threat to their cultural heritage and values brought about by immigration (Caiani & Parenti, 2011). This perspective suggests that the influx of people from different backgrounds might lead to the dilution or erosion of established traditions, fostering a sense of unease among those who hold such beliefs. Triandafyllidou (2013) argues that intolerance and rejection of immigrants can be framed as protective measures for the nation's well-being. In this view, proponents of supremacy seek to shield their society from perceived risks that could arise from cultural changes brought about by immigration. For those who align with nationalist and cultural patriotic ideologies, supremacy is important to them to evaluate various aspects of society. Thus, nationalism shapes the perceptions of public policy, social interactions, and communal values, often guiding the decisions to preserve their perceived cultural supremacy.

On the other hand, the idea of political patriotism revolves around valuing citizenship, civic virtues, and human rights (Caiani & Parenti, 2011; Heinrich, 2016). This perspective emphasizes the broader principles of democracy and inclusion, highlighting the importance of supporting the rights and well-being of all

citizens, regardless of their background. The positive attitudes towards immigrants exhibited by citizens who embrace democratic values and perceive their country as stable and secure (Gorodzeisky & Glikman, 2018) can be attributed to the belief that diversity can enrich society rather than threaten it. When people feel confident in their country's stability and security, they are more likely to view immigrants as potential contributors to the nation's growth and development rather than as sources of disruption. This perspective aligns with the inclusive ideals of political patriotism and a broader commitment to human rights.

According to Brenner and Fertig (2006) and Alonso and Fonseca (2012), political orientation is an important predictor in studying anti-immigration behaviour. The relationship between the left and the positive attitude towards immigrants is linked to a perception of immigrants as a resource that can be used to solve the problems of the labour market and to fill gaps in the health and pension sector (Ruhs & Anderson, 2012). On the other hand, although fascist and neo-Nazi sentiments became taboo after the war, far-right racism took a more politically correct position. Far-right parties have also had to pay more and more attention to the groups they are targeting. Hence, radical right-wing parties have grasped that part of the electorate that expresses certain concerns about specific sub-groups of the immigrant population (Williams, 2010).

Our research findings indicate that not all individuals are equally affected by threat appeals, as economic threats have led to more negative attitudes towards immigration among less-educated youth, while highly educated youth are less affected by the same demands. Therefore, younger individuals with lower levels of education are more susceptible to perceiving immigrants as a threat. This could be due to the fact that young people who drop out of school often face more challenges in finding employment compared to those who complete their studies. As immigrants in European societies generally have lower levels of education, young individuals with less education directly compete with immigrants in the job market, leading them to feel more threatened by immigration than others. As a result, economic threats pose a significant concern for young people with lower levels of education (Bottos et al., 2014; Schmuck & Matthes, 2015; Schneider, 2008).

An interesting and important finding that deserves further examination is the emergence of negative attitudes towards immigrants within Christian communities. In recent years, scholars such as Kerwin and Alulema (2021) have shed light on the puzzling tendency of some Christians, including Catholics, to express feelings and attitudes towards immigrants that seem at odds with the compassionate principles espoused by Christian teachings.

This phenomenon raises questions about the factors contributing to this misalignment and highlights the potential implications for both individuals and society. Kerwin and Alulema (2021) research highlights that, despite the core Christian values of compassion, empathy and acceptance of the stranger, many Christians, including Catholics, appear to hold perspectives in line with anti-immigration sentiments. This divergence between professed beliefs and actual attitudes could be attributed to several complex factors. Socio-economic concerns, cultural changes, and political influences could contribute to shaping individual views. Economic concerns, for example, could lead to fears that immigrants might

compete for jobs or resources, thus fostering a climate of resentment (Heizmann & Huth, 2021).

Furthermore, political rhetoric and media portrayal of immigration may influence the perception of Christians (Eberl et al., 2018). Some Christians may inadvertently adopt anti-immigration positions by aligning themselves with politicians who support restrictive immigration policies. This alignment raises important questions about the interplay between faith, politics, and social attitudes and how these interactions may lead to divergent interpretations of Christian teachings (Casanova, 2020).

Conclusions

The purpose of this paper is to present a fresh approach based on the application of fuzzy methods to the field of social sciences. The concept of national identity has been explored through three distinct dimensions: nationalism, political patriotism, and cultural patriotism. By analysing these three aspects, the objective is to determine to what extent these underlying variables can influence attitudes towards immigrants.

Additionally, the study explores how some other socioeconomic factors, such as age, gender, education, and socioeconomic status, influence attitudes towards immigrants. Utilizing the ordered probit model, we analyse the intricate interconnection among these factors, elucidating how they interact within the selected countries and across the two waves of the International Social Survey Program (ISPP) dataset—2003 and 2013. The ten selected countries (Denmark, France, Germany, Ireland, Norway, Portugal, Russia, Spain, Great Britain, and the USA) were chosen to discern impact variations across distinct cultural contexts.

Our findings substantiate prior research outcomes (Grigoryan & Ponizovskiy, 2018). Nationalist sentiment is a driving force influencing negative attitudes towards immigrants (Brenner & Fertig, 2006; Alonso & Fonseca, 2012). Similar to the analysis in Grigoryan and Ponizovskiy's study (2018), our results underscore a distinction between political and cultural patriotism regarding their impact on ATI. While nationalism and cultural patriotism exhibit negative correlations, political and institutional pride positively correlate with favourable attitudes towards immigrants.

Lastly, our study reaffirms the significance of various socio-demographic characteristics as drivers in shaping perceptions of immigrants. We identify eleven covariates—time, country, political orientation, age, religion, income, citizenship, occupation, unilateralism, education, and multilateralism—as influential drivers that expound on pro-immigrant behaviour.

Certain limitations deserve further attention as in any other study and provide avenues for future investigation. Expanding our analysis to encompass a broader spectrum of countries and additional waves of the ISSP beyond 2003 and 2013 could yield valuable insights. This future study would enable a more comprehensive understanding of the current situation, facilitating an exploration of the dynamic nature of these phenomena. Furthermore, our study delves into national identity through three distinct facets, excluding the examination of other

dimensions, such as civic or ethnic nationalism. We are committed to expanding this latent variable with these dimensions into a forthcoming analysis to create a more comprehensive framework. In addition, it would be interesting to address two additional aspects. Firstly, incorporating new covariates could offer a deeper understanding of the complexity of these relations. Secondly, applying alternative econometric models, such as multivariate probit models, could provide a more nuanced perspective on the relationships between ATI, national identity, and other socioeconomic characteristics. The future research would undoubtedly enrich the depth and breadth of the present study.

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Declarations

Conflict of Interest The authors declare no competing interests.

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