Introduction

Despite the fact that democratic representation is a complex phenomenon, there is a relatively broad agreement on its essential characteristic which results from the democratic theory. As the most common definition of democracy asserts that the “key characteristic of democracy is the continued responsiveness of the government to the preferences of the people” (Dahl 1971:1), responsiveness can be considered a central normative claim democratic theory widely accepted by scholars. Democratic representation then means that actions of policy makers are supposed to be responsive to the wishes of people on institutionalized arrangements that reliably create such connections (Pitkin 1967; Powell 2004). Although there is not the accepted normative rule or objective criterion for assessing whether representation works or not (Mantilla and Raunio 2006), there should be some match between the interests of the people and what representatives promote (Mcdonald and Budge 2008; Wessels 2009, Arnold and Franklin 2012). So the main function of democratic representation is to provide systematic connection between the policy preferences of representatives and citizens considered as their principals (Arnold and Franklin 2012; Costello et.al.2012). The democratic process thus depends on an effective and responsive relationship between the representative and the represented (Dalton, Farell and McAllister 2011).

Powell (2004) in his concluding article identifies two main groups of research on political representation that examine the connection of citizens and their representatives. The first is the so-called procedural representation, which deals with translation and correspondence of voters and party mandates win in legislature.

As Powell rightly points the vote-seat paradigm simplifies the preferences of citizens to partisan votes. Normative requirement of democracy is therefore affected by this kind of research only inadequately. More appropriate way to examine issues of linkage between citizens and representatives appears to be so called substantive representation. This approach focuses on the consistency of preferences and interests of citizens with the preferences and behavior of
their representatives. Substantive connection between the citizens and representatives is most often conceptualized as congruence (Önnudóttir 2014), whether on the broader ideological or specific policy level.

Congruence means, how close match there is between preferences of voters and their representatives or governmental policy. Degree of congruence is then often considered as indicator of the efficiency of the functioning of political representation (Mcdonald and Budge 2008), or indicator of democratic quality (Diamond and Morlino 2005).

The first question that proceeds to any examination of congruence is the question of conceptualization. As noted by Golder and Stramski (2010) in their seminal article, to a large extent, though, existing studies do not explicitly address how congruence is most appropriately conceptualized. Previous studies understand the congruence as a many-to-one relationship and measured it usually as the difference between the averages or medians of the citizens on one hand and members of parliament, political parties or government on the other hand.

Golder and Stramski, however, show that there is also another conceptualization of congruence as many-to-many relationship that understands the substantive representation on a priori grounds. In this approach congruence means the accuracy of transformation of citizen’s preferences in legislative body as whole, in terms of the similarity between the distributions of citizens’ and representatives’ preferences. This way of conceptualizing congruence has so far been greatly neglected by scholars despite it being able to present functioning of the democratic representation in wider terms.

Therefore, we conceptualize congruence as a many-to-many relationship in line with Golder and Stramski. Our aim is to measure level of congruence between citizens and their legislators on the sample of 15 European countries in two important policy dimensions, which are the left/right dimension and EU dimension. In this study we ask two main research questions. The

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1 Congruence although could not completely catch the normative requirement of responsiveness, because to achieve it is more important the representation in terms of acts and decisions of representatives than congruence in opinions or preferences. Decisional responsiveness of representatives can theoretically occur without opinion and interest congruence with their voters. Nevertheless, congruence can be considered as an important feature of the functioning of democratic representation. As Belchior (2012:354) points out MP-voter congruence should not be regarded as evidence of normatively superior expression of democratic representation, but rather as a means of looking at representation, and its constraints should be acknowledged.
first one is rather explorative: to what extent there is congruence between legislators and voters. Secondly, we ask whether the differences voter-representative congruence across countries are associated with some institutional factors or individual characteristics of the voters and representatives. Based on the literature review we have developed several hypotheses to test these relationships. The past research developed on different conceptualization and measurement of congruence indicates that there are several possible institutional (e.g. electoral system, party system, etc.) elements influencing the ideological and Europeanization congruence. There is also a minor stream of literature that suggests a possible link between the congruence and some individual level factors (related to either individual voters or MPs).

**Working hypothesis**

Based on the theoretical literature, previous empirical studies we could draw several hypotheses. We put them together in three groups according to the issues they regard. Due to the nature of our data, we are not able to examine the congruence relations at the level of individual political parties because the samples of surveyed representatives are not wide enough to provide such an analysis.

**Group 1: General**

First of all we are interested in how different congruence is in various issue dimensions. Existing research clearly shows that degree of congruence vary according to the issue at stake (Hurley and Hill 2003; Thomassen 1999; Page 2002, Schmitt 2010). More specifically, congruence is higher for the “salient” issues (Wlezien and Soroka 2009), which are important and comprehensible for voters.

In the case of party competition in Europe, there is general agreement on the dominance of left / right dimension (Hooghe, Marks and Wilson 2002; Mattila and Raunio 2006, 2012; Walczak and van der Brug 2011; McEvoy 2012; Costello, Thomassen and Rosema 2012) associated with economic questions. Left/Right dimension serves as a tool for identification and communication preferences of voters and political parties and creates ideological "super issue" (Pierce 1999; Marks and Stenbergen 2002), thus reducing the space of political conflict into single dimension. Despite the Left/Right dimension may take a different meaning across various countries (Powell 2009, Walczak and van der Brug 2011), due to dominance of this dimension in shaping party
competition of European countries, national systems of political representation of these states are largely compatible (Costello, Thomassen and Rosema 2012).

Prominent character of left-right issue in European politics is confirmed by empirical studies which widely support that voters mainly votes according their position in this dimension not only in the national elections but also in the EP elections (van der Eijk et al. 2005; Rosema and de Vries 2011; Thomassen and van Ham 2014). It is not surprising that the most studies have found that European citizens are well represented on this key dimension (van der Eijk et al. 2005; Schmitt and Thomassen 2009; Holmberg 2009; Costello, Thomassen and Rosema 2012; Melchior 2010; Pierce 1999; Belchior 2012; Rosema, Aarts and Denters 2011).

However, the dominance of left-right dimension does not mean that it is the only relevant issue dimension of party competition in Europe. Studies dealing with issue dimensionality in Europe identify two other important dimensions of policy space in Europe. The first is dimension that capture several non-economic issues such as environment, lifestyle, community, immigration with various labels such as libertarian/authoritarian (Kitchelt 1994), GAL-TAN (Hooghe et al. 2002; Marks et al. 2006), cultural (Costello, Thomassen and Rosema 2012), and social left/right (Bakker 2012). The second dimension consists of the issue of European integration. Recent research concludes that policy space in Europe can be best understood in terms of these three interrelated but distinct dimensions (Costello, Thomassen and Rosema 2012; Bakker 2012).

Unfortunately, our data do not allow us to appropriately measure the congruence of the second (cultural) dimension. Thus we focus only on two congruence dimensions, the ideological / left-right and the dimension of European integration. Empirical studies addressing this issue are not in full agreement. Schmitt a Thomassen (2000) in their study based on elite and citizen survey data from 1979 and 1999 argued that despite policy congruence on specific EU policy issues may be failing there is agreement between voters and party elites about general development of integration which is high as on the left/right dimension. However, the studies more often indicate that congruence on European integration issue is weaker than on the left/right dimension (Mattila and Raunio 2006; van der Eijk et al. 1999; McEvoy 2012; Costello, Thomassen and Rosema 2012).

In accordance with prevailing empirical results it is reasonable to assume that the importance of dimensions is reflected in the degree congruence and the more important dimension leads to
higher congruence. Therefore we expect the congruence on the more important left/right dimension to be higher than the congruence on the European integration dimension. The first hypothesis can be formulated as follows

**H1: Congruence is higher on the left/right dimension than on the dimension of European integration.**

**Group 2 Institutional factors**

The second group of factors, which we will examine their relationship with congruence are institutional features where previous studies give most attention (Dageforde 2013). Specifically, we will focus on two key and interrelated institutional factors: electoral rules and the party system.

On the issue of the electoral system impact on the congruence, the existing theoretical and empirical literature is not fully conclusive

In terms of congruence the positive effects of proportional electoral systems are mainly expected. Proportional electoral systems produce a higher number of relevant parties, thereby increasing the range of offers for voters and they have the opportunity to choose party relatively close to their preferences. Due to proportional allocation of seats in legislature there is wide range of voters preferences represented. These reasons lead to the expectation of high congruence amongst the voters and their representatives. For the SMD systems, number of parties is lower and with non-proportional distribution of seats the diversity as well as the accuracy of the representation of preferences is reduced in favor of the median voter preferences of individual districts. It is reasonable to assume a lower total congruence between voters and legislators. However, we could find theoretical assumptions about the advantages of non-proportional electoral systems for the representation of diversity of voter’s ideological positions (see Ezrow 2007). Even if majoritarian democracies are likely to be characterized by a few centrist parties this does not necessarily imply that they will automatically exhibit low levels of congruence between citizens and legislators (Golder and Stramski 2010), the conditions necessary to achieve a high level of congruence are significantly stringent compared to the proportional systems. It is therefore reasonable to assume a higher level of congruence in proportional systems, especially if we understand congruence as many-to-many relationship with importance of preferences distributions and not only distance to median voter.
Better results in legislative congruence for proportional electoral systems have been constantly confirmed by empirical studies (Huber and Powell 1994; Powell and Vanberg 2000; McDonald and Budge 2005; Kim, Powell and Fordinng 2010; Golder and Lloyd 2014; Golder and Stramski 2010) and it used to be considered as well established relationship. But on the other hand, several recent studies have come to opposite results indicating that there is no consistent advantage for proportional systems in promoting ideological congruence or even other institutional features associated with the electoral and party systems does not affect level of congruence (see Blais and Bodet 2006; Powell 2009; Belchior 2012; Rohrschneider and Whitefield 2012; Mattila and Raunio 2006; 2012).

Despite the ambiguity of the research results so far, taking into account the theoretical assumptions and empirical results of the study of Golder and Stramski (2010) who conceptualized congruence in a same way and prove some effect of proportional system to the legislative congruence, we expect that the proportional electoral systems will have a positive impact on the level of congruence.

Due to our limited sample for analysis we will not analyze the electoral systems in terms of their basic nature (proportional/SMD), but we rely on a Gallagher’s index of disproportionality (see Gallagher 1991) as a widely used and accepted indicator of electoral system character which offers the most desirable combination of features (Taagepera and Grofman 2003). The hypothesis reads as follows:

**H2: More disproportional electoral results lead to lower congruence**

A second institutional characteristic of the electoral system, where effect on congruence we examine is the district magnitude (DM). DM is an important feature of electoral rules affecting party strategies and voters’ decisions through mechanical and psychological effects. Larger DM leads to larger number of viable competitors for seats, which are distributed more proportional according to votes. Therefore, both mechanical and psychological effects tend to decrease as DM increases (Lachat, Blais and Lago 2012). In terms of the impact of DM on the congruence we can therefore expect a similar relationship as for the proportionality of electoral systems – higher DM should produce greater consistency in the distribution of preferences among voters and their representatives.
Walczak a van der Brug (2013) moreover show when larger districts are associated with open lists, candidates have a greater incentive to cultivate personal votes because they need to differentiate themselves from other candidates. This way of campaigning leads them to provide information to voters about their policy stance on issues, which in turn, makes it easier for voters to choose a candidate who represents their view well. They confirmed assumption by empirical analysis and provide some tentative evidence that congruence increases with district magnitude (Walczak and van der Brug 2013: 18).

However, we also find studies reporting no effect on DM congruence (see Rohrschneider and Whitefield 2012b) in line with other recent studies that reject the influence of institutional factors.

Similarly to the disproportionality of the electoral system, with our conceptualization, we can assume that DM will affect the level of congruence through its effect on the proportionality of the results and greater range of offers for voters.

**H3: Higher DM increase the congruence between MPs and voters**

In the same way, we can assume the relationship between the congruence and the key feature of the party system, which is the number of parties in the system. Higher number of parties in the system offers more choices for voters and increases the possibility of party that matches voter views. With higher number of parties in the system the distribution of representative’s preferences in the legislative should better reflect the distribution of voter preferences.

In determining the number of parties is not obviously important nominal number of parties participating in the elections, but number of parties reflecting the weight of their support and functioning party system. To determine the number of parties we will therefore use the established index of the effective number of electoral parties (Laakso and Taagepera 1979).

**H4: Higher effective number of parties increases congruence**

The polarization is the second feature of the party system proposed for the analysis. Party-system polarization reflects the degree of ideological differentiation among political parties in a system and indicating the range of ideological choices that parties represent and not just the discrete number of parties (Dalton 2008). Recent studies examining the impact of party system polarization on congruence show its important role. As Kim, Powell and Fording (2010) stated
the party system polarization has an important impact on the distortion of preference correspondence in democracies and shape the collective outcome—correspondence between the electorate as a whole and the representatives as a whole rather than the voter-party dyads. It appears that greater party system polarization reduces congruence and this effect is especially large in majoritarian electoral systems (Kim, Powell and Fording 2010; Powell 2011). On the other hand, in condition of low party system polarization, any electoral system seems to generate good congruence (Powell 2013:91). Just falling levels of polarization could then be one of the explanations for mentioned ideological congruence controversy about the impact of institutional variables on congruence (see Powell 2009). This change seems to be caused by declining party system polarization in the SMD systems (Powell 2013).

In line with these studies, we should assume that a low level of polarization will bring greater congruence. Theoretical assumptions and the subsequent empirical results of these studies, however, are based on conceptualization congruence as the distance between the median voter and the median legislator. Higher polarization should thus deliver potential gaps in the center which should lead to greater distance between the median voter and median legislator (Kim, Powell and Fording 2010). In conceptualization of congruence as distributions overlap between voters and legislators preferences this could not be a case. As shown by Dalton (2008) increased polarization delivers more diversity of electoral choice and voters can more clearly translate their Left–Right orientations into a party preference, proved by impressively strong relationship between the party polarization and the correlation between Left–Right attitudes and party choice preferences. We assume, therefore, rather the opposite effect of polarization of the party system on congruence i.e. higher polarization should increase the congruence despite the fact that once again we can find empirical studies with no relation confirmed between them (Belchior 2012; Mattilla and Raunio 2006) as with other institutional characteristics.

Party system polarization is a difficult concept to measure and we can find various measures estimated mainly from indirect indicators (Dalton 2008). Therefore, we will use probably the best direct measurement of polarization proposed by Dalton. He developed an index to measure polarization.

\footnote{Rohrschneider and Whitefield (2012a) offer different explanation. The impact of institutions in the past was largely due to the small number of independent voters. No institutional effect nowadays is because the most party systems are about equally divided between partisans and independents and parties face strains in representing diverse voters where majoritarian institutions may hold representational advantage.}
the distribution of parties along the Left–Right scale based on citizens’ estimations of parties’ positions (see Dalton 2008).

**H5: Higher party system polarization increases the congruence**

**Group 3: Individual factors**

The third group of factors that have an impact on congruence according to the literature are individual characteristics of citizens or representatives. There are several reasons why we can expect that some individuals or groups of citizens may be represented better by representatives.

Firstly, we can assume that individuals who participate in elections will have higher congruence with representatives than those who don’t. It might seem intuitively obvious and clear that congruence should be at higher among voters than non-voters, whereas they contribute by their input in elections. Theoretical justification for this assumption is offered by influential study of Griffin and Newman (2005), who identified three kinds of reasons for better representation of voters. Firstly, voters selecting representatives similar to their preferences. Secondly, the parties adapt their positions to the voters because they send them readable signal of their preferences. Thirdly, representatives intuitively seek re-election and care about voters' preferences, not non-voters. However, this presupposes a systematic difference in the preferences of voters and non-voters. Empirical studies indeed confirm the systemic nature of abstention with several important characters especially education and age (see Evans 2006, Norris 2002, Brady, Verba, Scholzman 1995). Scholars are however significantly divided on the impact of non-participation for election results. Some studies indicate that electoral results are affected by abstention (Radcliff 1994, Pacek, Radcliff 1995; Bohrer, Pacek, Radcliffe 2000), large group of studies shows however that non-participation does not significantly alter the overall election results which means that voters relatively well represent the electorate as a whole (Kohler and Rose 2010; Bernhagen and Marsh 2010; Citrin, Schickler and Sides 2003; Grofman, Owen, Collet 1999; Verba 2003; Rosema 2007; Pettersen and Rose 2006).

Despite the ambiguity of empirical studies we expect that congruence will be higher amongst MPs and voters than non-voters.

**H6: Congruence is higher for voters than for non-voters**
As a process of voter representation, democratic elections will function well if voters are aware of the political stances of candidates and parties (van der Eijk and Franklin 1996) and also voters need to have a clear understanding of their own preferences (McEvoy 2012). These abilities imply some degree of political knowledge that voters can acquire by education or their interest in politics. We can therefore assume that congruence among voters with higher education and interested in politics will be higher.

Empirical results on the relationship of these factors to the level of congruence in the literature are ambiguous. Walczak a van der Brug (2013) confirmed higher congruence among educated and politically knowable voters. On the contrary Belchior (2012:37) states that education and political information are not significant for congruence. McEvoy (2012) suggest that citizens with greater political knowledge are more congruent with parties on EU integration issues but citizens with knowledge have no discernible representational advantage on cultural and economic dimensions.

Mass survey of INTUNE project investigated the level of education of respondents. Due to various educational systems of European countries at the primary and secondary level these results may not be good for comparison; therefore, we focus on the difference between university educated voters and the rest of the population.

On the issue of citizens' interest in politics we will rely on this survey as well and use the question “How much interest do you generally have in politics?”. We compare the congruence of voters with “a lot” and “some interest” in politics with those with “not very much” and “not at all” interest in politics.

H7: Congruence is higher for voters with university degree than for the citizens with lower level of education.

H8: Congruence is higher for politically interested voters than for politically uninterested.

The last two hypotheses concern individual characteristics representatives, namely their experience and perceived nature of representation.

On the question of representative experience we follow the assumption of Belchior (2012: 358) on the positive impact of representatives’ experience to their congruence. She assumed the more experienced MPs are, the more accurate their perceptions of positions voters and the
more congruence one can expect. Despite the fact that the assumption was not confirmed by the empirical analysis, we consider it useful to test this hypothesis with our data and different conceptualization congruence. As experienced MP consider any representative who performs at least his second term in Parliament.

H9: Higher share of experienced MPs lead to higher congruence with voters.

The final hypothesis builds on the debate about the nature of representation and its impact on congruence. These studies focus on mechanisms representatives use to arrive at decisions and whether their role choice has any consequences for their behavior as elected representatives (Andeweg 2012). Representational roles have predominantly been discussed in terms of well-known mandate/independence controversy (Pitkin 1967) with later introduction of political parties which result in adding the partisan role by Converse and Pierce (1986). The nature of representation refers to the role of the representative, in particular whether a representative can be classified as a delegate, trustee or a partisan (Önnudótir 2014).

Empirical results of studies investigating representational roles and congruence are mixed (see Wessels and Giebler 2011; Andeweg 2012; Önnudótir 2014).

Unfortunately, our data do not allow testing the representational roles for the established types of trustees, delegates and partisans. To capture the different nature of representation of individual representatives we use the INTUNE survey question for political elites ask for the group to which the MP himself considers to be representative. The exact wording of this question as follows “Do you think of yourself primarily as representative of” offered a choice of four specific groups: your constituency; your party; a particular social group; the citizens of your country as whole. We assume that in our conceptualization of congruence based on the distribution of preferences, the most widely perceived representation, in this case, the voters of the country as a whole, will contribute to the higher level of congruence.

H10: Higher share of MPs that claim to represent the people as whole lead to higher congruence between the voters and MPs.
Methodology

Measurement and Data

The second problem related to the study of congruence is the question of measurement. As Powell (2009: 1479) states in another seminal article on this topic at the heart of the problem of studying congruence empirically is the need to estimate the positions of the citizens and the positions of their representatives on the same scale and the problem is compounded in cross-national analyses. Powell also describes three approaches of existing studies to measure congruence labeled as 1/ citizen/expert survey approach, 2/ the party vote/party manifesto approach, and 3/ the citizen identification/citizen perception approach. Despite their differences, in each case position of the representatives is based on the separately estimated positions of the political parties and all representatives are assumed to be at the position of their party. These approaches to measuring congruence are based and useful for conceptualizing congruence as many to-one relationship to determine the distance between median citizen (voter) and median legislator (government) or match between the position of parties and their voters.

However, if we conceptualize congruence as many to many relationship, we need data of two distributions of preferences. The above approaches focused on measurement of political parties, however, fail in providing distribution of preferences of representatives. Therefore we need a different approach of measuring congruence which would catch the preferences of individual representatives to determine the distribution of preferences of representative body as a whole and compare it with the distribution of citizens’ preferences.

This is complicated so far by the lack of comparative data which would allow measuring the positions of representatives as individuals necessary for analyzing congruence in many to many conceptualization. Golder a Stamski (2010) solves this problem by building the distribution of preferences of the legislative body members through the citizen’s perception, in which citizens are asked not only place themselves but also each political party on left-right scale. While this approach makes it possible to create a distribution of preferences of citizens as well as their representatives, but faces serious inherited disadvantage. It is assumed that citizens are in fact informed about “true” positions of each party (Powell 2009). Golder and Stramski reflect this issue when taking into account only the perception of 40% of the most educated citizens to
ameliorate problem that uninformed (uneducated) voters tend to place a party that they are unfamiliar with in the middle of the issue dimension rather than report no opinion at all (Golder and Stramski 2010: 98). Nevertheless, the accuracy of the perception of citizens and the actual placement of legislators remains present. It is questionable as accurately can the citizens (even the educated and better informed) estimate the actual preferences of their representatives.

Data we use come from second wave of the INTUNE project dataset conducted in 2009. The INTUNE project was oriented towards the attitudes on the European citizenship and integration and was realized in several European countries (Cotta, Isernia & Belluci 2009). The advantage of this dataset is that it surveyed not only the respondents sampled from the general population, but also members of parliaments at the same time.

This type of data is an improvement comparing to the past studies. The issue with the past research is that they mostly operationalized the indicators for elites/parties as either expert’s or voters’ evaluation (Golder & Stramski 2010; Andeweg 2011, etc.). Therefore a legitimate question is whether the previous research measured the congruence between the people and elites, or between the people and people’s (or experts’) view on the elite. Since our data contain the same question with the same answer scale that was answered both by the people and MPs we claim that we measure the congruence between the people and MPs appropriately.

The ideological position is measured on the 11-point ordinal scale from 0 (left) to 10 (right). The respondents were asked “Where would you place yourself on a scale from 0 to 10 where ‘0’ means "the left" and ‘10’ means "the right", and '5' means "neither left nor right"?”. The attitudes towards the European integration are measured on the same scale and the question respondents answered was „Some say European unification has already gone too far. Others say it should be strengthened. What is your opinion... on this scale, '0' means unification "has already gone too far" and '10' means it "should be strengthened" (survey questionnaire).

The same scale for both the people and MPs and also for both of the questions has numerous advantages. Most importantly, we can compare the attitudes of the two groups without any further rescaling and thus keeping the maximum information in the analysis. Secondly, the same scale between the two questions allows us to easily compare the congruence between the two dimensions, ideology and European unification.
Our sample consists of 15 European countries covered INTUNE project both with the survey of political elites and general population. The sample includes the old EU countries, some of the new EU member states from the Central Europe as well as one case of a country which is not a member of the EU (Serbia).

After conceptualizing congruence as a many-to-many relationship in our study, we need to address measurement.

Measurement of congruence in many to many conceptualization requires the evaluating how similar the distributions of citizen and representative preferences are on specific issue. Golder and Stramski do this by difference in cumulative distributive functions (CDF) of citizens and representatives preferences. As they claimed, this measure captures differences in both the shape and/or location of citizen and representative preferences and directly captures both the strategic and mechanical aspects of representation by explicitly focusing on how accurately ideological preferences are translated into legislative seats (Golder and Stramski 2010: 97-98).

Andeweg (2011) proposed a specific indicator to capture the congruence between two distributions of values. The author proposes that the congruence could be expressed as the overlap of the probability distribution functions of the respective distributions (PDF). (2011: 43). Additionally, Andeweg argues that “the outcome is the same as with Golder and Stramski’s measure, but it has the advantage that it lends itself to straightforward visual presentation, and that it is intuitively more appealing to have a measure ranging from zero (no overlap) to one hundred (identical distributions)” (ibid.). Due to this advantage we follow Andeweg’s example and construct the congruence indicator as the overlap of the voters’ and representatives’ PDF of values on both dimensions.

The figure below illustrates the approach of Andeweg (2011). There are three different countries with several alternative distributions of the voters and representatives values. The

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3 Strictly speaking the PDF is only defined for continuous data and what Andeweg actually works with are frequencies and histograms, and it would be more exact to speak of Empirical CDF (ECDF) instead of CDF. Author himself admits this issue, however, he argues that approximating the PDF and presenting the results in a line graph is much easier to understand. We use the ordinal scale in this paper as well and therefore we face the same problem. We follow Andeweg’s approach and visualize our results in a line graphs later on.
figure illustrates that more the distributions of values are apart the less of overlap there is. The overlap of the distribution is then the indicator of congruence.

**Figure 1: Illustration of different probability functions**

Due to the small number of countries we were not able to build a multivariate model and perform the multivariate regression analysis. Therefore we “only” test the bivariate associations. We use the Spearman’s Rho coefficient to assess the strength of the association. This is a non-parametric measure of correlation that takes into account the ranking of the cases in regard to the selected variables. Non-parametric correlation is more appropriate than the parametric one for the following reasons. Firstly, we are more interested in the shift in the ranking of the countries due to the change in an independent variable rather than the magnitude of the change\(^4\). Secondly, the non-parametric correlation coefficient is more suitable for relatively small sample size (Walsh, 1962; Connovaer, 1980).

We do not report the significance levels of the correlations coefficients for several reasons. Statistical significance would only have its meaning if the country selection was random and the paper would generalize its findings beyond the selection of the studied countries. In other words, the statistical significance would only matter in question of external validity. However, our country selection is not random and is limited by the data availability. Additionally, we do not generalize our findings to other European or extra-European countries. When presenting the results, we only claim the findings hold in the group of 15 selected countries.

\(^4\) The Spearman’s Rho coefficients were compared to the Pearson product moment correlation coefficient and the results were almost the same.
Empirical Analysis
The first hypothesis expected the congruence to be higher in the more important dimension, e.g. the left-right ideological position. The argument is that the ideological attitudes are more important than the unification attitudes because it is the ideological attitudes that structure the electoral competition. The expected association between the congruence and the importance of the dimension is inspected in Table 1, column 2. Empirical analysis reveals that only three countries have higher ideological congruence between voters and representatives, as compared to the unification congruence. In the three countries the ideological congruence is higher than the EU integration congruence only by one percentage point. Overall, the difference ranges from almost plus one percentage point in Germany, Belgium and Bulgaria to minus 32 percentage points in the UK. Based on the empirical findings we have to reject our first hypothesis.

Table 1: Congruence difference among several groups of citizens and dimensions

<table>
<thead>
<tr>
<th>Country</th>
<th>Voters' Congruence:</th>
<th>Voters vs. Non-voters (in dimensions:)</th>
<th>Interested vs. Not Interested (in dimensions:)</th>
<th>Voters with higher education vs. lower edu (in dimensions:)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>left-right vs. EU integration</td>
<td>left-right</td>
<td>EU integration</td>
<td>left-right</td>
</tr>
<tr>
<td>Austria</td>
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<td>19,19%</td>
<td>22,75%</td>
<td>9,32%</td>
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<td>Belgium</td>
<td>1,00%</td>
<td>14,15%</td>
<td>4,63%</td>
<td>17,32%</td>
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<tr>
<td>Bulgaria</td>
<td>1,00%</td>
<td>17,03%</td>
<td>0,67%</td>
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<td>-25,00%</td>
<td>7,00%</td>
<td>9,42%</td>
<td>10,79%</td>
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<td>17,00%</td>
<td>4,80%</td>
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<td>26,86%</td>
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<td>1,51%</td>
<td>1,56%</td>
<td>6,01%</td>
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<td>29,49%</td>
<td>13,67%</td>
<td>2,95%</td>
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<td>16,27%</td>
<td>4,37%</td>
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</tr>
<tr>
<td>Serbia</td>
<td>-2,00%</td>
<td>69,37%</td>
<td>7,94%</td>
<td>6,83%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>-8,00%</td>
<td>7,07%</td>
<td>18,72%</td>
<td>5,92%</td>
</tr>
<tr>
<td>Spain</td>
<td>-21,00%</td>
<td>6,42%</td>
<td>-5,77%</td>
<td>18,02%</td>
</tr>
<tr>
<td>UK</td>
<td>-32,00%</td>
<td>29,89%</td>
<td>10,82%</td>
<td>24,47%</td>
</tr>
</tbody>
</table>

Source: INTUNE 2009, authors’ calculation

The set of institutional hypotheses were tested by non-parametric bivariate correlations. We expected that higher disproportionality, district magnitude, the effective number of parties and
party system polarization would be associated with higher congruence. Figure 2 below presents the correlation results in form of scatterplots as well as Spearman’s correlation coefficients. The first four columns correspond to hypotheses two to five.

In relation to the institutional factors we find two moderate and one relatively strong association in the ideological dimension. Gallagher’s disproportionality index is negatively associated with the ideological congruence, which is contrary to our expectations. On the other hand, district magnitude seems to be highly correlated with the ideological congruence. The association between Rae’s Fractionalisation Index and ideological congruence is also moderately positive. Finally, data show no relationship between the Dalton Polarisation Index and ideological congruence. Based on the results of empirical analysis we reject the hypotheses two and five. On the other hand, we find empirical support for our hypotheses that the district magnitude and party fractionalisation are positively correlated to ideological congruence.

Figure 2: Scatterplots and correlation matrixes

![Figure 2: Scatterplots and correlation matrixes](image)

| Source: INTUNE 2009, authors’ calculation |

Individual factors served as a common ground for the third set of hypotheses. We argue that both the ideological and EU unification congruence should be higher for voters than non-voters, higher for voters interested in politics than for the uninterested ones, and higher for voters with university degree than for those with education lower than university or college degree.
Firstly we inspect the congruence difference between voters and non-voters. In the ideological dimension the congruence is higher for voters in all 14 countries and values range from +1.51 p.p. in Greece to +29.89 p.p. in the United Kingdom. Within the EU integration dimension there is one country with congruence lower for the group of voters than for the group of non-voters. It is the case of Spain with the difference of -5.77 p.p. Rest of the countries have positive values (congruence higher for group of voters) ranging from +0.67 p.p. (Bulgaria) to 22.75 p.p. (Austria). Based on the empirical data we conclude that in the group of 14 investigated countries the congruence is higher for voters’ group than the non-voters’ group (except the integration dimension in Spain). Therefore we accept the hypothesis no. 6.

The argument behind the hypotheses seven and eight reads that voters who are better educated and/or are interested in politics are better equipped to understand their own preferences and preferences of different candidates. Therefore, the considerably more informed choice at the ballot increases the congruence, as opposed to voters who are not interested in politics and/or have lower education.

We investigated the suggested relationships separately. The results show that it is indeed the case that voters interested in politics have higher ideological congruence than the voters uninterested in politics. The difference runs from 2.95 p.p. (Hungary) to 24.47 p.p. (UK). The picture is not so clear in the EU integration dimension, where congruence is lower for interested voters by 3-4 percentage points (Greece and Poland). However, the rest 13 countries have the congruence difference running in the expected direction, from 1.14 p.p. (Bulgaria) to 14.63 p.p. (Belgium). Generally, we can accept the hypothesis 7.

Concerning the higher education impact on ideological and the EU integration congruence, the expected relationship seems to be present in all but two countries. Ideological congruence for voters with higher education, as compared to voters with lower degree, is higher in all countries but Hungary (-5.96 p.p.). The largest positive difference is in Denmark, 22.14 p.p. In the EU integration dimension there are two countries with congruence lower for the university degree voters, Hungary (-11.09 p.p.) and Slovakia (-12.66 p.p.). The highest positive congruence difference is in Germany with 30.09 p.p. in favour of voters with higher education. Overall we conclude that the effect of higher education on the voter-representative congruence is present in overwhelming majority of studied countries.
Finally we tested two hypotheses related to the individual characteristics and attitudes of legislators. We hypothesized that higher proportion of MPs claiming to represent the whole population is actually associated with higher ideological or unification congruence. The last tested hypothesis expected the share of re-elected legislators to increase the congruence because of their experience allowing them to anticipate the voters’ attitudes better. The results of the two tests are in Figure 2, the last two columns.

Share of re-elected MPs in the legislative body seems to be in a relatively strong negative relationship with ideological congruence. In the EU integration dimension the correlation is also negative, although relatively weak. Both results, however, provide evidence to reject our hypothesis no. 9.

Lastly we inspected the relationship between the share of MPs claiming to represent the whole population and the population-representatives congruence. Empirical data show almost no association at all in the ideological dimension. In the EU integration sphere there seems to relatively weak negative relationship, which is against our theoretical expectations. Therefore we have to conclude that we have not enough evidence to reject the null hypothesis – no relationship between the congruence on the one hand and the share of MPs claiming to represent the whole population at the other hand.

Discussion & Conclusion

This paper investigates the congruence between voters and their representatives in 15 countries in two dimensions: left-right self-placement (ideological congruence) and attitudes towards EU integration (unification or the EU integration congruence). Based on the previous research we have developed three sets of hypotheses that link congruence to either importance of the dimensions, institutional factors or individual characteristics of voters or legislators.

Firstly, the empirical evidence does not support the dimension importance hypothesis, rather the contrary. The EU integration congruence seems to be higher in 12 of 15 countries in our study. Therefore we rejected the first hypothesis.

Secondly, we found enough evidence to accept 3 of 4 institutional hypotheses. The analysis shows that the proportionality of electoral results, district magnitude, and effective number of parties are associated with higher ideological congruence. However, there seems to be no
relationship between the abovementioned factors and the EU integration congruence. The fourth institutional factor we inspected, party polarisation, seems to have no impact on either of the congruence dimensions.

Thirdly, we were able to confirm three of five hypotheses related to individual characteristics of voters or representatives. Interestingly enough, it is the three hypothesis regarding the characteristics of voters we accept and the two hypothesis regarding characteristics of legislators we reject. The evidence shows that, with very few exceptions, congruence is higher for voters than non-voters, voters with an university degree (as compared to voters with a lower degree) and also for voters interested in politics (as opposed to those uninterested). This holds in both of the congruence dimensions in question. On the other hand, we did not find evidence that congruence would be higher in countries with higher share of re-elected MPs or in countries with higher share of MPs claiming to represent the population as whole.

This paper brings several novelties into this area of study. Firstly, we make use of an unique dataset that combines both the population survey and the legislators’ opinion survey having the same items and scales. This allowed us to conceptualise the congruence as many-to-many relationship which overcomes several shortcomings stemming from previously used conceptualisations (Golder & Stramski 2010). In this way we can actually compare the attitudes of voters with the attitudes of representatives, instead of opinion of voters about representatives or expert opinion on representatives.

Our findings have several implications for the current research of congruence and contribute to the scholarly discussion in this area. Firstly, our findings contradict the recent studies on the institutional effect on congruence and confirm the claims of more traditional literature that institutions do matter. Secondly, we have also showed, in line with the theoretical work that congruence between representatives and voters varies among different group of voters (based on education, interest in politics) or non-voters.

Last but not the least our paper also shows that the ideological congruence is considerably different from the EU integration congruence. While we could explain variation in the ideological congruence by three institutions, the EU congruence is linked to neither of the institutions we tested. Also, the EU integration congruence seems to be higher in 12 of 15 countries. However, this does not necessarily mean that this is more important dimension of the
democratic representation than the ideological attitudes. It is equally possible that the EU integration is not such a polarising issue in the individual countries and thus the voters and representatives align in the same direction.

References:


