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## **Language Policy and Linguistic Justice in the European Union: The Socio-Economic Effects of Multilingualism**

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### **Table of Contents**

1. Introduction .....	3
2. Dataset .....	5
3. Designing Indicators and Assessing Effectiveness .....	6
4. The Evaluation of the Fairness of the EU's Language Policy .....	11
5. Conclusion and Discussion .....	16
References .....	20

**PROVISIONAL DRAFT**

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## Abstract

This article addresses the question of the effectiveness and the fairness of the language policy of the European Union, by carrying out a comparative analysis of four alternative language regimes. A monolingual language policy based on English only, a trilingual language regime founded on English, French and German, and finally an oligarchic language policy including six official languages are compared to the *status quo*, that is, a multilingual language regime based on the formal equality among the official languages of the EU Member States. Using statistical analysis and data provided by Eurostat, this article shows that multilingualism is (and will be for the foreseeable future) by far the most effective language policy for the external communication of the EU. Further, results reveal that a drastic reduction in the number of official and working languages of the EU would have regressive effects among EU citizens, as it would be significantly detrimental to Europeans with a low level of education and income, and to the elderly. The empirical evidence provided in this article supports the claim that a multilingual language policy can contribute to the social cohesion in the EU.

**Keywords:** European Union, Evaluation, Effectiveness, Fairness, Language regime, Linguistic justice

## 1. Introduction

The decision made by the European Union (EU) at its inception to give official status to all official languages of its Member States (Regulation n°1/58, regularly updated after every enlargement)<sup>1</sup> has led to an intensive debate on its costs, advantages and disadvantages. The debate is characterised by a relatively high diversity of approaches, including applied linguistics (Phillipson, 2003; Ammon, 2006; Wright, 2009; Romaine, 2013), discourse analysis (Krzyżanowski and Wodak, 2011), translation studies (Tosi, 2013), political science (Pool 1996; De Swaan, 2001; Ives, 2004; Kraus, 2008; Barbier, 2013), and political philosophy (Patten, 2007; Van Parijs, 2011).

Notwithstanding this large number of theoretical contributions, little empirical research has been carried out so far on the comparative evaluation of the language policy, or language regime, of the EU. The few quantitative studies are typically anchored in economics or policy analysis. Interdisciplinary research in language policy and planning (LPP) has shown that language policies can be viewed and analysed as a form of public policy (Grin 2010; Grin and Gazzola 2013), and, therefore, they can be compared and evaluated on the basis of standard fundamental criteria of evaluation, such as effectiveness, efficiency (often interpreted as cost-effectiveness) and fairness. In LPP the study of the fairness of language policies is sometimes referred to as “linguistic justice” (Peled et al. 2014, De Schutter 2007). Empirical studies of the EU language regime tend to focus on the analysis of the effectiveness and efficiency of the EU language policy (Ginsburgh and Weber, 2005; Gazzola, 2006b; Fidrmuc and Ginsburgh, 2007), and usually they do not address explicitly the question of the evaluation of its fairness, with some partial exceptions (e.g. Gazzola and Grin 2013). This is somehow surprising, as fairness (together with efficiency) is a key evaluative criterion in policy analysis. We hasten to clarify that, in policy evaluation, assessing the fairness of alternative policies (or scenarios) implies identifying who loses, who gains, and (if possible) to what extent within each scenario. Thus, there is no primarily moral or ethical content in the technical concept of fairness in policy analysis (Just et al. 2004). Obviously, the empirical assessment of such distributive effects

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<sup>1</sup> For a detailed description of the history of the EU language regime, its legal basis and its practical implementation see Gazzola (2006a), Athanassiou (2006), Nißl (2011), and Hanf *et al.* (2010).

provides a basis for normative statements on alternative policies, but such ethical statements are not addressed here.

The purpose of this article is to fill this gap by evaluating the fairness of the language policy of the EU or, more precisely, the likely effects on fairness of a *change* of the current language policy. In recent years the current language policy of the EU has been overtly criticised for being too costly and cumbersome. According to some authors using only one language would contribute to the effectiveness of the EU, and it would be a first step towards the creation of a genuine European *demos* that could eventually encourage the cohesion of the EU as a whole. Usually the candidate language is English (e.g. De Swaan, 2001; Archibugi 2005; Rose 2008, Cogo and Jenkins 2010; Van Parijs 2011), and occasionally Esperanto (e.g. Piron 1994; Selten and Frank 2005). Other authors propose intermediate solutions based on a restricted number of official languages, for example, six — that is, English, French, German, Italian, Polish and Spanish (Fidrmuc *et al.* 2010) — or three — that is, English, French and German (Ginsburgh and Weber, 2005). A trilingual language regime seems to be supported by the European Commission for certain purposes and in some circumstances.<sup>2</sup>

It is appropriate, therefore, to evaluate what could be the distributive effects of a drastic reduction in the number of EU official languages, and more precisely on the languages used for its external communication. Using data provided by Eurostat, this article shows that a reduction in the number of official languages of the EU or a reduction of the domains of use of some of the current official languages would disadvantage not only (and quite obviously) the citizens of some Member States; it would be also particularly detrimental to the weakest social groups within those countries. The main finding of this article is that the current full multilingual policy of the EU, based on translation and interpreting, is not only the most effective language policy among the alternative options usually put forward in the literature; it is also (and it will be for the foreseeable future) the only one that is truly inclusive. This article is organised as follows. Section number 2 illustrates the dataset used in this article. Section 3 compares the effectiveness of four alternative language policies, a preliminary step toward the evaluation of fairness, a

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<sup>2</sup> For example, the Commission argued in favour of a trilingual language regime based on English, French and German for an open competition for the recruitment of administrators and assistants (e.g. Case C-566/10 P - Italy vs Commission, 21 June 2012, lost by the Commission), and it defended an oligarchic language regime based on English, French and Spanish for a call for proposals (e.g. Decision of the European Ombudsman on complaint 259/2005(PB)GG against the European Commission, 30 April 2008, lost by the Commission).

question addressed in Section 4. Section 5 summarises and discusses the results by linking up this article with some topics incorporated in the current debate on linguistic justice in the EU.

## 2. Dataset

This article employs data from the *Adult Education Survey* (AES) published by Eurostat in 2011. All definitions apply to European residents aged 25-64 living in private households. The reference year is 2007. The sample used in this article is made up of 24 Member States of the EU, that is, the current 28 EU Member States, excluding Ireland and Luxembourg (since they have not participated in the AES), Malta (because it does not allow microdata to be released to any third party except *Eurostat*), and the Netherlands (as no figures on language skills have been collected for this country). The reader should be aware that the results for the English language are slightly underestimated, as Ireland is an English-speaking country and a good knowledge of English as a foreign language is quite widespread in the other three countries mentioned. However, these four countries together make up only 4% of the population of the EU, and it turns out that their exclusion does not change substantially the conclusions of this article (more on this below).

Besides demographic and socio-economic information on the respondents, the AES contains information on EU residents' native language(s) and on their knowledge of foreign languages. Data on foreign languages have been collected with respect to 38 languages and on the basis of self-assessment by interviewees on a formally defined four-level scale of competence, that is:

- *basic* (“I only understand and can use a few words and phrases”);
- *fair* (“I can understand and use the most common everyday expressions. I use the language in relation to familiar things and situations”);
- *good* (“I can understand the essentials of clear language and produce simple text. I can describe experiences and events”);
- *proficient* (“I can understand a wide range of demanding texts and use the language flexibly. I master the language almost completely”).

Hence, the AES, at least as regards EU residents aged 25-64, is considerably richer than the three *Eurobarometer* surveys on the linguistic skills of European citizens published in 2001, 2006 and 2012 (see for example, European Commission 2012a), which were already employed in the literature (e.g. Gazzola and Grin, 2013; Fidrmuc and Ginsburgh, 2007). The AES includes more variables, more languages and the levels of competence are formally defined and divided into four levels, whereas in the *Eurobarometer* survey there are only three levels (that is,

“basic”, “good” and “very good”), which, moreover, were not formally defined. This leaves to the respondents the responsibility of interpreting what, say, “very good” means. If not specified differently, all tables presented in this article have been elaborated directly by the author.

In the 24 Member States examined (rounding to the first decimal), 93.4% of residents are citizens of the EU — or “national” using the terminology of the AES —, 2% are EU citizens living in another EU Member State, 4.2% are not EU citizens, while 0.2% do not know or refuse to answer. The remaining 0.3% is made up of Estonian residents. Probably as a result of the problematic political status of the Russian-speaking minority in that country, no data has been collected to distinguish between “nationals” and “non-nationals”. This article focuses on European citizens (either national or living abroad), as they have the right to vote in European elections, and it encompasses all Estonian residents to avoid the exclusion of a further country. The sample is made up of 190,523 observations.

### 3. Designing Indicators and Assessing Effectiveness

A *language regime* is the language policy of an organisation, and it can be defined as a set of official and working languages, along with rules concerning the use of such languages for the communication within and outside the organisation examined (Gazzola, 2014a). In this article, we focus on the part of the EU language regime that concerns external communication. As discussed in the introduction, language regimes are a form of public policy that can be evaluated following the methodology of policy analysis. Therefore, a distinction must be made between the *inputs*, the *outputs* and the *outcomes* of a language regime. Inputs are defined as the human, regulatory and material means used to implement a policy (e.g. the costs of language services such as translation and interpreting). The *outputs* of a language regime are what have been directly produced through the resources employed, typically the number of pages of translated documents or the amount of hours of interpreting per year. The *outcome* is the effect of the policy on the target population (in this case, EU citizens). The evaluation of the effectiveness and the fairness of a language regime must be carried out on the basis of outcomes.

The outcome indicator used in this article is the *linguistic disenfranchisement rate*, defined as the percentage of citizens who potentially cannot understand EU documents (e.g. legal texts, regulations, web pages, call for tenders) and oral public discussions (e.g. meetings of the European Parliament transmitted via the Internet) because they do not master any official language. The lower the disenfranchisement rate, the higher the effectiveness. The relationship between output and outcome in this case is straightforward. This indicator, introduced by

Ginsburgh and Weber (2005), has been used in different evaluations of the language policy of the EU based on *Eurobarometer* data (e.g. Ginsburgh *et al.*, 2005; Gazzola and Grin, 2013). A better outcome indicator would probably be the number of citizens who *actually* have access to, read or download EU documents. However, to our knowledge, no data exists to populate such indicator, and therefore it is not useful for our analysis. By contrast, the disenfranchisement rate is an intuitive and relatively easy-to-compute indicator of the effectiveness of the language policy of the EU (or, more precisely, its external communication). Clearly, other indicators could potentially be relevant for the analysis of the EU language regime.<sup>3</sup>

The linguistic disenfranchisement rate can be directly linked to some of the main objectives of the EU, that is, facilitating the democratic participation of European citizens in EU affairs and informing residents and taxpayers about EU business. The policy-relevance of this indicator can be deduced from the results of a recent *Eurobarometer* survey, according to which 60% of Europeans believe that the translation from, and into, foreign languages plays a very, or fairly important, role in enabling participation in EU activities or getting information about them (European Commission 2012a). Some criticism regarding the validity of the disenfranchisement rate is discussed at the end of this section.

With respect to the existing literature, a distinction is introduced between the *absolute* disenfranchisement rate ( $D_a$ ) on the one hand, and the *relative* disenfranchisement rate ( $D_r$ ) on the other. The first indicator is defined as the percentage of citizens who are totally disenfranchised linguistically because they have no knowledge of any official language.  $D_a$  is *de facto* equal to the disenfranchisement rate already used in the literature, and it is defined as  $D_a=100\%-(S_b)$ , where  $S_b$  is the percentage of citizens who have at least some knowledge of at least one official language (native speakers are therefore included).

It would be risky, however, to put native speakers of a language on the same level as those who declare a limited level of knowledge of such a language. It is reasonable to assume that a very good level of knowledge is required to understand without too much effort legal texts, calls for tenders, web pages presenting health notices about food, discourses of a political or technical nature such as those produced by various bodies of the EU. The relative disenfranchisement rate captures precisely this idea.  $D_r$  is defined as  $D_r=100\%-(NS+NNS_p)$ , where NS stands for

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<sup>3</sup> Grin and Gazzola (2013) propose for a list of more than 200 linguistic indicators for the evaluation of efficiency and fairness of language policies in different contexts, including international organisations such as the EU.

the percentage of native speakers of the official languages, and  $NNS_p$  stands for the percentage of non-native speakers who, according to the AES self-evaluation scale, declare a “proficient” level of knowledge of at least one official language as a first or second foreign language. Even if the level of language skills in the AES is self-assessed, one can be rather confident about the reliability of the data in general. First, a formal self-evaluation grid was used, and second the number of observations collected is large and, therefore, it is likely that people underestimating their competences compensate for those overestimating them. In this article both disenfranchisement rates are used because they provide a lower and an upper bound.

Evaluation is always carried out with respect to at least a counterfactual. In this article, we compare four language regimes. The first language regime corresponds to the *status quo*, that is, a *multilingual* language policy based on 22 official languages (Maltese and Irish are excluded from our analysis, as Malta and Ireland are not included in our dataset); an *oligarchic* language regime including six languages only, namely, English, French, German, Italian, Polish and Spanish; a *trilingual* language regime based on English, French and German; and finally a *monolingual* (or English-only) language policy.

Table 1 presents the absolute and the relative disenfranchisement rates of four alternative language regimes. Table 1 shows net values, that is, there is no double counting.

[Table 1 here](#)

On the basis of the results presented in Table 1 the following conclusions can be drawn. First, there is a significant difference between absolute and relative disenfranchisement rates. This implies that, on average, EU citizens in the 24 countries considered do not have high skills in foreign languages. For example, 51% of EU citizens in our sample declare themselves as having at least some knowledge of English (including native speakers), but the percentage of citizens who declare themselves as “proficient” in English as a foreign language and native speaker of it are much lower (7.6% and 11.8% of the sample, respectively).

Second, the current multilingual language regime is by far the most effective language policy among the four alternatives examined. Thus, it would be misleading to look at a full multilingual language regime primarily as being the price to pay for the symbolic political

equality among Member States; it is first and foremost the most effective language policy to convey information about the EU to Europeans. All the other alternative language regimes presented here would disenfranchise significant sections of EU citizens.

The positive value of the relative disenfranchisement rate for the multilingual policy (1.7%) is due to the presence of different minorities in some Member States, notably, the Russian-speaking minority and, to some extent, Arabic- and Turkish-speaking citizens with limited proficiency in the local, dominant official language. This result, however, must be interpreted with caution due to a problem in the data collection in France (more on this below). A positive, although very low,  $D_r$  associated with the *status quo* means that the relative disenfranchisement rate resulting from the three alternative language regimes must be read in additional terms. For example, as 1.7% of EU citizens are (relatively) linguistically disenfranchised anyway, the *additional* (or marginal)  $D_r$  associated with the monolingual language regime is 78.9%. In other words, moving from a multilingual language regime based on 22 official language towards a monolingual language regime would increase  $D_r$  by 78.9 percentage points.

Finally, the data reveals that knowledge of English is not a “basic skill” and that this language is not a universal lingua franca in Europe as is mistakenly argued by different authors (e.g. Rose 2008; Cogo and Jenkins 2010). In the 24 countries considered, between 49% and 80% of EU citizens either do speak it or know it to a level which is not likely to be high enough to take part in EU business without too much effort. One could argue that these results are biased by two factors. First, the exclusion of countries such as Ireland and the Netherlands, and second by the lack of data on the level of proficiency in foreign languages in Denmark (as regards the first and second foreign language) and Italy (limited to the second foreign language). However, other studies (e.g. Gazzola and Grin, 2013) using a different dataset (i.e. the *Eurobarometer* 2012) covering 28 Member States converge towards very similar percentages. We hasten to clarify that the conceptual difference between English and ELF — “English-as-a-lingua franca” (Hülmbauer and Seidlhofer, 2013; Formentelli, 2012) — has no policy relevance because essentially ELF is English (see Gazzola and Grin, 2013; Fiedler 2010 for a discussion).

Significant differences exist among countries, as shown in Table 2. A monolingual language regime would disenfranchise more than 50% of EU citizens in 13 countries out of 24, and this percentage would be above 90% in 15 countries out of 24 if the disenfranchisement indicator used in  $D_r$ . Adding French and German to English reduces both  $D_a$  and  $D_r$  in Southern and Eastern countries respectively, but not significantly in the Nordic countries. Nevertheless, a

trilingual language regime would still disenfranchise more than 1/3 of EU citizens in 15 countries out of 24. The percentage of disenfranchised citizens climbs to 90% in 13 countries if the  $D_r$  is used. Finally, adding Italian, Spanish and Polish, not surprisingly, drastically reduces the disenfranchisement rate in Italy, Spain and Poland, but it does not modify significantly the value of  $D_a$  and  $D_r$  in the other countries, with the partial exception of Slovenia, Croatia, Portugal and Lithuania. Interestingly the relative disenfranchisement rate is positive and above 3% in Austria, Germany and France, even if German and French official languages are used. This is due to the presence of citizens with a foreign background and immigrants from other EU countries with limited knowledge of English, French or German, and this proportion could rise as a result of an increasing mobility in Europe. Note that results for France must be interpreted with caution because of possible errors in data collection.<sup>4</sup>

[Table 2 here](#)

Before moving to the next section, let us discuss three possible criticisms of the use of the disenfranchisement rate in language policy evaluation. First, one could argue that not all European citizens are necessarily interested in the business of the EU and that just a tiny minority of people actually needs to be informed about the process and the outcomes of EU policy-making. No figures on this are available, but one can speculate that this might be true also for the vast majority of EU citizens within the boundaries of the national state. Few citizens in practice read legal texts such as laws, regulations or simply the web pages of different Ministries, and probably a small percentage of citizens regularly follow the debates going on in the national Parliaments. In Canada, for example, it is estimated that citizens interact on average only 10 hours per year with the federal administration (Vaillancourt and Coche 2009). But is

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<sup>4</sup> Data on the level of French as a first or second foreign language in this country are not likely to be reliable. No respondent, in fact, was able to assess his/her level of knowledge of French as a first or second foreign language in France, that is, all non native speakers of French responded “I do not know” to the question on the self-assessment of the level of skills in French as a foreign language. But this is not credible, because at least some non native speakers of French living in France must be proficient in this language. As a result, the variable  $NNS_p$  is equal to zero, which artificially increases the value of  $D_r$  in this country. Further, as France is a large country in the EU, this error could slightly inflate the  $D_r$  associated with the oligarchic, trilingual and multilingual language regimes at the EU level.

this a good reason to disenfranchise them linguistically? One could argue that an organisation that aims at being truly democratic and accessible should make legally-binding texts, policy-relevant deliberations, information concerning health, security and rights available to all citizens and taxpayers who may legitimately be interested (at least potentially) in accessing such information.

A second criticism concerns the quality of the language used. One could claim that normative texts are often not understandable even to native speakers. Obviously, the language used for official purposes should be clear and comprehensible, but this does not change the validity of our analysis because its object is *multilingual* communication and not communication as such. A text published in Bulgarian, no matter whether the language used is clear or not, will probably not be understood by monolingual Portuguese-speaking citizens.

Finally, some authors argue that the linguistic proximity of a set of official languages can affect the value of the disenfranchisement rates (Ginsburgh et al. 2005). It is common knowledge that Spanish can be relatively easier to understand for Italians compared with Finnish, but “intercomprehension” (that is, the mutual understanding between cognate languages) works well only if it is the target of specific training (Conti and Grin 2008). Such training is still not widespread in Europe today.

#### **4. The Evaluation of the Fairness of the EU’s Language Policy**

In this article, the fairness of alternative language policies is assessed on the basis of the *distribution* of the disenfranchisement rate across social groups (the notion of “social group” is used in a broad sense in order to include individuals with a similar socio-economic status). It is quite logical that a monolingual or a trilingual language regime would disadvantage the citizens of some Member States more than others. Yet, to our knowledge, it has never been clarified which social groups *within* Member States would suffer more from a reduction in the number of official languages and, most importantly, by *how much*. This is a crucial piece of information in *ex ante* policy evaluation. Generally speaking, a careful comparison of the likely impacts of alternative policy options should be carried out in order to make informed decisions about which policy is best suited to achieve some relevant policy goals. Surprisingly, with few exceptions, the majority of the authors who recommend a decrease in the number of official languages of the EU provide no empirical analysis of the expected outcomes of such a choice.

The AES allows us to characterise EU citizens according to different relevant socio-economic dimensions, in particular their age, income status, educational level achieved and occupational

status. Consequently, we define four macro social-groups on the basis of these variables, and we examine the relationships between them and the disenfranchisement rates.

Table 3 reveals the distribution of  $D_a$  and  $D_r$  by age group. Table 3 puts the results of Table 1 into perspective by introducing the time dimension in our analysis. As the AES is not a panel dataset we cannot explore the variation of the disenfranchisement rates across time. Nevertheless, studying the change of the disenfranchisement rates across generations provides a first idea of the likely evolution of the disenfranchisement rates in the future.

[Table 3 here](#)

Results show a clear relationship between the absolute disenfranchisement rate and age: younger generations tend to speak foreign languages more often than older ones, and, therefore, the  $D_a$  is lower among the younger. The absolute disenfranchisement rate associated with an English-only language regime, for example, is 62.5% among citizens aged 55-64 but only 35.4% among those aged 25-34 (recall that native speakers of English are included). We observe the same trend for all three language regimes presented as alternatives to the *status quo*. Nevertheless, the  $D_r$  tends to be high and rather constant across generations. For the trilingual, the oligarchic and even the multilingual language regimes, the relative disenfranchisement rate, probably as a result of recent migration flows, is even slightly higher among the younger generation than the older. The main conclusion is that, on average, younger EU citizens are more likely to have acquired at least some knowledge of foreign languages than their fathers (as shown by the difference in the means of  $D_a$  across cohorts) but they do not learn them *much better* (as revealed by the difference in the means of  $D_r$ ). This observation has important consequences for language policy: the need for translation and interpreting in the EU, at least for demanding texts, is not likely to change drastically in the future.

Evidence provided in Table 3 does not support the claim that fluency in English (or English, French and German) is becoming a generalised skill in Europe. This conclusion is corroborated by the results of the *First European Survey on Language Competences* published in 2012 (European commission 2012b). The competence in different foreign languages (mostly English and sometimes French) was tested on a sample of some 53,000 pupils in the last year of lower

secondary education (or ISCED2)<sup>5</sup> or the second year of upper secondary education (or ISCED3) in several European countries. The main conclusion of this survey is that “language competences provided by educational systems still need to be significantly improved” (European commission 2012b), as just a minority of pupils (28%) reach a level B2 of the *Common European Framework of Reference for Languages: Teaching, Learning and Assessment* (CEFR), which is usually the maximum grade of competence targeted at the ISCED3 level. Note that a B2 level can be considered to be the equivalent of a “good” level in the AES and not “proficient”.

Let us turn to the variable “income status”. In the AES the income status of EU citizens is defined in relative terms and it is characterised using quintiles,<sup>6</sup> which make it possible to compare the income status of citizens across different countries. Unfortunately, there have been some mistakes during data collection for this variable in some countries.<sup>7</sup> This negatively affects the reliability of a contingency table in which the relationship between disenfranchisement rates and income status is examined. Nonetheless, some evidence for a subset of countries can be provided. In Table 4, 15 EU countries are rank-ordered according to the strength of the statistical correlation between the ordinal variable “income status” and the dichotomous variable “knowledge of at least one official language as a foreign language”. The correlation is measured through the Spearman’s rank correlation coefficient ( $\rho$ ).<sup>8</sup> In order to

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<sup>5</sup> ISCED stands for *International Standard Classification of Education*, a system developed by UNESCO to facilitate the comparison between the educational systems of different countries.

<sup>6</sup> Recall that a quintile is defined as 20% of a statistical distribution. The first quintile, for example, corresponds to the first 20% of the population.

<sup>7</sup> The statistical distribution of observations classified according to the income groups is skewed towards the first quintile for some countries and to the fourth quintile for other countries (which should not be possible because by definition a quintile must contain 20% of observations).

<sup>8</sup> The Spearman’s correlation coefficient ( $\rho$ ) tests the correlation between ordinal monotonically related variables. Unlike the Pearson’s correlation coefficient there is no requirement for normality. Recall that  $\rho$  can take values from +1 to -1. A  $\rho$  equal to 1 indicates a perfect positive association of ranks, a  $\rho$  equal to zero indicates no association between ranks and  $\rho$  equal to -1 indicates a perfect negative association of ranks. The closer  $\rho$  is to zero, the weaker the association between the ranks. A further technical remark is necessary. The statistical software used for our analysis does not allow weighting adjustment when computing  $\rho$ . In our sample this would be a major problem if  $\rho$  were computed at the EU level, as the size of national sub-samples does not reflect the real size of EU countries (it is precisely for this reason that survey weights must be used). Nevertheless, this is not a major issue if  $\rho$  is estimated at the country level. It turns out that the association between the absolute disenfranchisement rate and the income status at the country level (measured through simple contingency tables), is not really affected

avoid spurious correlations, native speakers of the official language(s) of a language regime must be excluded in this statistical analysis.<sup>9</sup>

In order to make the comparison between language regimes possible, in Table 4 countries are clustered in four groups that reflect four levels of correlation intensity. These groups are defined by the range of the value of  $\rho$ . The higher the value of  $\rho$  the higher the correlation.

[Table 4 here](#)

The Spearman's rank correlation coefficient is positive for all countries in our subset and all the language regimes given as alternatives to the *status quo*. Table 4 reveals a general correlation between the level of income of EU citizens and the fact that they have at least some knowledge of at least one of the official languages of a language regime as a foreign language. Generally speaking, EU citizens belonging to the fourth and the fifth quintile of the income distribution (i.e. those with a higher income) are more likely to have at least some knowledge of foreign languages and, therefore, are less likely to be disenfranchised if the number of the official languages of the EU were reduced. In other words, there is a relationship between the income status of EU citizens and their skills in foreign languages, and therefore a relationship between income status and the absolute disenfranchisement rate.<sup>10</sup>

There are significant differences between Member States. In some countries, e.g. Romania or Portugal, the relationship is stronger than in others (e.g. Hungary or Sweden). This could be due to the fact that in the latter countries some knowledge of foreign languages is quite widespread among the population (e.g. in Sweden), or, alternatively, it is *not* widespread among

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by the use of survey weights. Thus, not using weighting adjustment when we compute  $\rho$  at the level of individual countries, in practice, is not likely to cause significant bias in the estimates shown in Table 4.

<sup>9</sup> This is important for multilingual countries such as Belgium. For example, including native speakers of French in the assessment of the correlation between income status and the absolute disenfranchisement rate associated with the trilingual language regime would artificially weaken  $\rho$  because French is the mother tongue of a significant share of Belgian citizens.

<sup>10</sup> For reasons of space, we cannot discuss in detail the relationship between income status and the *level* of knowledge of foreign languages, one of the variables that explains the relative disenfranchisement rate. Suffice it to say that the value of  $\rho$  is still positive but, for several countries, lower than the value of  $\rho$  in Table 4.

citizens (e.g. in Hungary), no matter what their level of income is. Furthermore, Table 4 shows that the correlation between income status and disenfranchisement rate is independent from the language regime chosen. Putting it differently, any language regime among the three alternatives examined would create a higher disenfranchisement rate among citizens with a relatively lower income than among citizens who have a relatively higher income. By contrast, the current language regime, based on the formal equality among the EU official languages, does not entail significant inequalities among citizens based on income status, because the official languages used correspond, with some exceptions, to their mother tongue or primary language of education.

Let us turn to education. Table 5 presents the absolute and the relative disenfranchisement rates by the highest level of education successfully completed by EU citizens, defined in the AES following the ISCED classification. In Table 5, only five levels of education are considered, that is, “primary” (9.2% of the sample), “lower secondary” (16.4%), “upper secondary” (45.8%, usually this level corresponds to the end of compulsory education), “post-secondary non-tertiary” (4.2%), and “tertiary” (23.5%). The “pre-primary” level of education (0.9% of the sample) is ignored.

**Table 5 here**

Table 5 reveals a clear relationship between, on the one hand, the value of  $D_a$  and  $D_r$  associated with the three language regimes alternative to the *status quo*, and, on the other hand, the level of education of EU citizens. A trilingual language regime, for example, would totally disenfranchise one fourth of all EU citizens who achieved an upper secondary level of education, but only 7% of those who achieved a tertiary level of education (recall that Table 5 presents percentages based on the whole EU population; thus, native speakers are included). Note, however, that the relative disenfranchisement rates are much higher, and they tend to be so also for citizens who achieved a tertiary level education. For example, a monolingual language regime would (relatively) disenfranchise almost two third of EU citizens who have achieved a tertiary level education. These results show that in Europe fluency in English, French or German is still a not a reality, even among the most educated.

Let us conclude this section by examining the distribution of the disenfranchisement rates according to the main occupational status of EU citizens. We focus on the most important types of occupational status, defined in the AES as (i) “people carrying out a job”, which includes unpaid work for a family business, holding an apprenticeship or paid traineeship (69.8% of the sample), (ii) “unemployed” (6.9%), (iii) “retired” (8%), (iv) “permanently disabled” (3.1%), and (v) people “fulfilling domestic tasks” (8.8%). Table 6 disregards the classes formally defined as “pupils, students, people in training”, and citizens “involved in compulsory military service” as they represent only 1% or less of the sample.

[Table 6 here](#)

Table 6 shows that the disenfranchisement rates tend to be unevenly distributed across occupational statuses: lower for EU citizens carrying out a job, higher for unemployed and retired people, the permanently disabled and citizens fulfilling domestic tasks (a variable strongly correlated with gender).

## 5. Conclusion and Discussion

Empirical evidence does not support the claim that an English-only or restricted multilingual language regimes (which we have called “trilingual” and “oligarchic”) in the EU would contribute to the effectiveness of European communication and to its cohesion. Rather, our results tend to show that the contrary is likely to be true, thus confirming the conclusions of other studies (e.g. Phillipson 2003; Gazzola and Grin 2013; Backus et al. 2013; Barbier 2013; Kraus, 2008). First, a monolingual language policy based on English-only or restricted multilingual language regimes would be much less effective than the current language policy of the EU in the foreseeable future. Second, a drastic reduction of the official language of the EU would have *regressive effects*, that is, it would be particularly detrimental to members of the weakest groups in society and, in particular, the older, the least educated citizens, those with the lowest income status, the unemployed, retired people, the permanently disabled and women fulfilling domestic tasks. This confirms the fact that individual multilingual skills in Europe still tend to be, on average, an elite phenomenon,<sup>11</sup> and that a reduction in the number of official

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<sup>11</sup> On this point see also Gerhards (2012). Note, however, that the language skills of European upper classes should not be overestimated. Empirical evidence shows that, on average, the linguistic skills of legislators, senior officials

languages regimes tend to privilege the better-off. Hence, these results support the claim that translation and interpreting, by making it possible to implement a full multilingual regime based on the mother tongues or the primary language of education of the vast majority of EU citizens and taxpayers, can contribute to social cohesion and European integration (European Commission 2010).

In order to test the logical robustness of our findings, two counter-arguments must be briefly discussed. Let us call them the “cost argument” and the “linguistic assimilation argument”. The first argument deals with the economic sustainability of the EU language policy. According to the last figures available for 2012, the EU spends roughly € 1.1 billion per year on language services (Gazzola and Grin 2013). It is not likely that the enlargement in 2013 through the inclusion of Croatia changed substantially this outlay. € 1.1 billion amounts to 0.0085% of the GDP of the EU in 2012 (€ 12,927 at current prices), 1% of the budget of the EU bodies and a yearly expenditure of about € 2.2 per resident, or € 2.7 if we focus on citizens who are at least 15 years old. Hence, it is absurd to claim that the language regime of the EU after the enlargements in 2004 and 2007 “has become economically unsustainable” (Cogo and Jenkins 2010). Something that costs 0.0085% of aggregate income cannot be defined as economically unsustainable. The real question is how much EU citizens are willing to pay for translation and interpreting services, and whether € 2.7 is good value for money. We cannot answer this question, which is purely subjective, but it is perhaps useful to compare the European situation with the Canadian example, one of the few countries for which data on the costs of official bilingualism exist.

From April 2006 to March 2007 inclusive,<sup>12</sup> the costs borne by the Canadian federal government to provide bilingual federal public services in the two official languages (English and French) — that is, official documents and oral services, cultural services such as TV and radio broadcasting, and the provision of criminal justice in both languages (education is therefore excluded) — amounted to 1.6-1.8 billion Canadian dollars (CAD), of which CAD 0.28 billion (roughly € 0.2 billion) were spent for translation and interpreting services (Vaillancourt and Coche 2009). CAD 0.28 billion amount to 0.02% of the Canadian GDP in

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and managers — who are usually considered as part of the elite — are often *worse* than the language skills of intermediate staff (Gazzola, 2014b).

<sup>12</sup> The federal fiscal year runs from the 1st of April of one year to the 31st of March of the following calendar year; budgetary data are disseminated on that basis and not for calendar years.

2006-2007 and to € 3.6 per citizen per year. Clearly, the EU and Canada are comparable just to a certain extent, as the number of services provided by the Canadian federal government to its citizens is probably larger than in the European case. Nevertheless, there are similarities between the two situations. The EU must publish official documents (including their electronic version) in different languages too and it must provide multilingual legal procedures at the European Court of Justice. Hence, if we compare the costs of translation and interpreting in the EU as a percentage of the GDP or if we compare them with the Canadian case, the costs of European multilingualism do not seem exaggerated.

Given the current distribution of language skills among EU citizens, reducing the direct costs of the EU language regime through an English-centred language regime, an oligarchic or a trilingual policy would essentially amount to shifting the costs of multilingualism onto European citizens who do not know the official languages well enough, and more specifically onto the worse-off. In addition, to our knowledge, it has never been demonstrated that, on the aggregate, this would cost less than using a centralised translation system. Let us make a simulation based on back-of-the-envelope calculations. For simplicity, only the monolingual regime is examined. Assume that the average EU citizen interacts with the EU no more than 30 minutes per year, that is, 20 times less than the time typically spent by a Canadian citizen interacting with the bilingual Canadian federal administration (Vaillancourt and Coche 2009). Interaction means, for example, browsing the EU website, reading official documents, getting information about EU elections, or writing a letter to the Commission. Let us focus on EU citizens who are at least 15 years old, that is, roughly 410 million in 2012 (European Commission 2012a). As shown in this article (limited to citizens aged 25-64) and in other contributions (for all EU citizens) using the *Eurobarometer* dataset (e.g. Gazzola and Grin 2013), roughly 50% of Europeans do not have any knowledge of English. Hence, at least 205 million EU citizens should privately bear some translation or interpreting costs in order to communicate with the EU. The average price for a working hour of a translator or interpreter employed by the EU is at least € 27.<sup>13</sup> Obviously, it is possible to find cheaper translators or interpreters on the market, but the quality of the output could be lower too. For lack of better data we assume, therefore, that the hourly cost of € 27 provides the minimum price to guarantee a translation qualitatively comparable with that produced by EU translators. Thus,

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<sup>13</sup> The gross basic salary for an EU translator at the very first stage of his/her career is € 4,384.38 [http://ec.europa.eu/dgs/translation/workwithus/staff/permanent/index\\_en.htm](http://ec.europa.eu/dgs/translation/workwithus/staff/permanent/index_en.htm). We work under the assumption that there are 40 hours of work per week and 4 weeks per month.

disenfranchised EU citizens would spend at least € 2.8 billion per year to communicate with the EU ( $€ 27 \times \frac{1}{2} \text{ hour} \times 205 \text{ million}$ ), that is, more than double the current cost of a full multilingual language policy. Conclusions do not change if we assume that 50% of these disenfranchised citizens ask for help from friends or colleagues instead of paying a professional translator: even assuming that the opportunity cost for friends' and colleagues' time is zero,<sup>14</sup> a centralised translation and interpreting system would be cheaper still (€ 1.1 vs. € 1.4 billion). It is worth stressing that privately borne costs would certainly be much higher if the  $D_r$  indicator were used.

Let us now turn to the second argument. One could argue that disenfranchisement rates in the long-term could be drastically reduced by appropriate language acquisition planning aiming at achieving a *de facto* linguistic assimilation. Van Parijs (2011), for example, argues that existing inequalities in the levels of knowledge of English in Europe provide a good justification for massive public investments to “democratise” the knowledge of this language, precisely in the name of “justice”. The relevance and the practicability of this proposal have already been refuted elsewhere (among others, see Lacey 2013, Grin 2004, Barbier 2012, and Phillipson 2012). Nevertheless, some important points must be recalled.

First, minimising the disenfranchisement rate through a set of policy measures aimed at spreading proficiency in English could have erosive effects on other languages in the long-term, which is something about which EU citizens may have legitimate concerns. Van Parijs proposes a strict application of the territoriality principle to reduce the probability of domain loss in EU Member States where English is not an official language. However, it turns out that this could entail two opposite and contradictory effects. If the application of the territoriality principle successfully limits the spread of English, then the disenfranchisement rate associated with a monolingual language regime could remain positive, and the problem, therefore, will not be solved. If the territoriality principle is not applied effectively — that is, if some exceptions are accepted in different internationalised high-status sociolinguistic domains such as the workplace or higher education —, then the spread of English could gradually have a negative impact on the EU citizens' willingness to maintain their languages (Grin 2004). Why should EU people invest time and resources to promote or support languages that in practice become less and less prestigious and useful?

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<sup>14</sup> Recall that in economics the concept of “opportunity cost” refers to the cost of an alternative that must be forgone in order to pursue a certain action.

Finally, accelerating the spread of English to achieve “justice” in the long-term though vigorous acquisition planning measures such as banning dubbing on English-speaking movies fails to acknowledge their cultural and political effects in the short- and medium-term. As Lacey correctly notes “even if a point is reached where the lingua franca becomes a universal language of political and creative expression, getting to this stage by the means Van Parijs advocates will involve a long process of asymmetric cultural flows, making the world ever more Anglo-Americanised. In short, by the time the Chinese and Egyptians [or Romanian and Estonians, *note of the author*] are robustly grabbing the global megaphone, their thinking and behaviour will already have been greatly influenced by exposure to the culture of their anglophone counterparts” (Lacey 2013: 9).

Let us note, in concluding, that the disenfranchisement rate used in this article is admittedly a rough indicator of potential participation in the EU business, as it is based on a simplistic definition of communication as “information transfer”. It is well known, indeed, that the value attached to languages for many people goes beyond the simple communicative value, and one could question whether the acquisition of skills in foreign languages can legitimately be used as a justification to progressively deprive some EU citizens and taxpayers of the opportunity to use their native language within the EU. It is incumbent on EU citizens and EU decision-makers to evaluate whether they are willing to pay less than € 3 per capita per year to guarantee a multilingual language regime. The main outcome of this article is an empirical contribution to the public debate through a clarification of what would be today and in the foreseeable future the allocative and the distributive effects of a drastic reduction in the number of the official languages of the EU, and what would be the costs of such a choice.

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**Table 7 : Absolute and relative disenfranchisement rates, UE-24. Data in percentage**

<b>Language regime</b>	<b><math>D_a</math></b>	<b><math>D_r^*</math></b>
<i>Monolingual</i> (English)	49.0	80.6
<i>Trilingual</i> (English-French-German)	28.2	53.9
<i>Oligarchic</i> (Six languages)	12.2	24.5
<i>Multilingual</i> (22 languages)	0.2	1.7

Source: Eurostat, AES 2011.

\*= No data on the level of language skills in the first and second foreign languages for Denmark. No data on the level of language skills in the second foreign language for Italy.

**Table 8 : Absolute and relative disenfranchisement rates, by country UE-24. Data in percentage**

Language regime	Monolingual		Trilingual		Oligarchic		Multilingual	
	<i>D<sub>a</sub></i>	<i>D<sub>r</sub><sup>*</sup></i>	<i>D<sub>a</sub></i>	<i>D<sub>r</sub><sup>*</sup></i>	<i>D<sub>a</sub></i>	<i>D<sub>r</sub><sup>*</sup></i>	<i>D<sub>a</sub></i>	<i>D<sub>r</sub><sup>*</sup></i>
<b>Country</b>								
Austria	28.6	82.2	0.3	4.0	0.3	3.8	0.2	3.2
Belgium	41.3	86	14.2	42.4	13.8	41.3	0.4	1.7
Bulgaria	79.1	96.6	64.3	95.6	63.5	95.3	0	0.1
Cyprus	16.5	73.8	16.3	73.3	16.3	73.1	0	1.5
Croatia	56.2	92.5	38.1	89.6	36.2	88.2	0.2	1.5
Czech Rep.	66.6	95.3	46.7	93.4	45.6	93	0.1	0.2
Denmark	13.9	n.a.*	12	n.a.*	11.8	n.a.*	0.4	1.4
Estonia	53.8	91.5	46.4	90.6	46.1	90.5	10	28
Finland	19.5	83	18.9	82.3	18.8	82	0	0.2
France	54.5	95	0	8.7	0	6.2	0	4.3
Germany	41.3	81.5	0.6	5.9	0.5	4.1	0.4	3
Greece	52.1	91	49.4	90.2	48.6	89.5	0.1	1.1
Hungary	85.5	96.9	77.3	95.1	77.2	95	0	0
Italy	54	96.9*	40	95.3*	0.2	0.7*	0	0
Latvia	58.5	93.7	48.2	92.8	47	92.2	3.4	25.3
Lithuania	62.1	96.6	44.7	95.4	32.9	87.4	0.4	4.9
Poland	74.9	96.3	62	94.8	0	0	0	0
Portugal	63.3	92.7	53.9	90	51.4	88.8	0	0.1
Romania	81.1	96.5	73.9	95.8	72.9	95.5	0.6	1
Slovenia	39.2	81.4	22.8	75.7	19.8	73.5	0.1	1.2
Slovakia	70	94.9	49.5	92.1	46.5	91.8	0	0.1
Spain	66.4	94.4	58	92.3	0.2	2.2	0.1	1
Sweden	8.2	68.2	7.8	67.4	7.4	66.2	0.1	1.5
UK	0.5	1.6	0.3	1.5	0.1	1	0.1	0.8
<b>Average</b>	<b>49</b>	<b>80.6</b>	<b>28.2</b>	<b>53.9</b>	<b>12.2</b>	<b>24.5</b>	<b>0.2</b>	<b>1.7</b>

Source: Eurostat, AES 2011.

\*= No data on the level of language skills in the first and second foreign languages for Denmark. No data on the level of language skills in the second foreign language for Italy.

**Table 9 : Absolute and relative disenfranchisement rates, by age group. UE-24. Data in percentage**

Age group		64-55	54-45	44-35	34-25	Average
<i>Language regime</i>						
Monolingual	$D_a$	62.5	54.3	43.2	35.4	<b>49.0</b>
	$D_r^*$	82.3	82.4	78.9	79	<b>80.6</b>
Trilingual	$D_a$	36	30.8	24.7	21.3	<b>28.3</b>
	$D_r^*$	53.9	53.7	52.3	56	<b>53.9</b>
Oligarchic	$D_a$	15.5	13.1	10.5	9.5	<b>12.2</b>
	$D_r^*$	24.9	24.3	23.2	26	<b>24.5</b>
Multilingual	$D_a$	0.2	0.2	0.2	0.2	<b>0.2</b>
	$D_r^*$	1.3	1.6	1.8	2.2	<b>1.7</b>

Source: Eurostat, AES 2011.

\*= No data on the level of language skills in the first and second foreign languages for Denmark. No data on the level of language skills in the second foreign language for Italy.

**Table 10: Correlation between income status (in quintiles) and the knowledge of at least one official language, selected EU countries.**

<b>Spearman's rank correlation coefficient</b>	<b>Language regime</b>		
	<i>Monolingual</i>	<i>Trilingual</i>	<i>Oligarchic</i>
≥0.40	Portugal, Romania,	Romania	Romania
0.30-0.40<	Czech Republic, Estonia, France	Czech Republic, Estonia, Portugal	Czech Republic, Estonia, Portugal
0.20-0.30<	Austria, Belgium, Lithuania, Slovenia	Belgium, Lithuania, Slovenia	Belgium, Lithuania, Slovenia
0.10-0.20<	Denmark, Finland, Germany, Greece, Italy, Sweden	Denmark, Finland, Greece, Hungary, Italy, Sweden	Denmark, Finland, Greece, Hungary, Sweden

*Source: Eurostat, AES 2011.*

*The Spearman's rank correlation coefficient is always statistically significant at the 1% level.*

**Table 11 : Absolute and relative disenfranchisement rates, by the highest level of education or training successfully completed by EU citizens. UE-24. Data in percentage**

Level of education		Primary ISCED1	Lower secondary ISCED2	Upper secondary ISCED3	Post- secondary non-tertiary ISCED4	Tertiary ISCED5/6	Average
<i>Language regime</i>							
Monolingual	$D_a$	93.3	70.9	48.6	32.7	18.6	<b>49.0</b>
	$D_r^*$	99.6	92.2	80.4	80.4	65	<b>80.6</b>
Trilingual	$D_a$	27.9	42.6	25.8	14.6	7	<b>28.3</b>
	$D_r^*$	84.6	64.5	52.2	45.6	38.5	<b>53.9</b>
Oligarchic	$D_a$	22.3	16.9	13.1	9.8	2.7	<b>12.2</b>
	$D_r^*$	30.7	25.9	26.1	25.8	17.2	<b>24.5</b>
Multilingual	$D_a$	0.1	0.5	0.1	0.1	0.1	<b>0.2</b>
	$D_r^*$	2.2	2.6	1.5	1.5	1.3	<b>1.7</b>

Source: Eurostat, AES 2011.

\*= No data on the level of language skills in the first and second foreign languages for Denmark. No data on the level of language skills in the second foreign language for Italy.

**Table 12 : Absolute and relative disenfranchisement rates, by main occupational status of EU citizens. UE-24. Data in percentage**

<b>Occupational status</b>		Carries out a job	Unemployed	Retired	Permanently disabled	Domestic tasks	<b>Average</b>
<b>Language regime</b>							
Monolingual	$D_a$	43.5	58.8	70.7	62.5	61.2	<b>49.0</b>
	$D_r^*$	79.0	88.0	88.7	74.1	83.0	<b>80.6</b>
Trilingual	$D_a$	23.9	31.5	42.4	47.4	41.1	<b>28.3</b>
	$D_r^*$	51.8	57.0	59.0	60.4	60.7	<b>53.9</b>
Oligarchic	$D_a$	10.7	13.1	22.9	18.5	11.9	<b>12.2</b>
	$D_r^*$	24.4	24.5	31.7	26.9	19.2	<b>24.5</b>
Multilingual	$D_a$	0.1	0.3	0.2	0.2	0.4	<b>0.2</b>
	$D_r^*$	1.6	3.2	1	1.9	2.3	<b>1.7</b>

Source: Eurostat, AES 2011.

\*= No data on the level of language skills in the first and second foreign languages for Denmark. No data on the level of language skills in the second foreign language for Italy.