European Union Politics 2016, Vol. I7(4) 546-569 (C) The Author(s) 2016

# Multilingual communication for whom? Language policy and fairness in the European Union 

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#### Abstract

This article compares the effectiveness and the fairness of four alternative policies aimed at managing multilingual communication in the European Union. The current multilingual regime, based on the formal equality among the official languages of the European Union Member States disenfranchises only a small percentage of residents. On the contrary, an English-only language policy would exclude $45 \%$ to $79 \%$ of adult residents in the 25 countries for which data are available, depending on the indicator used. A language regime based on English, French and German would disenfranchise $26 \%$ to $49 \%$ of residents, whereas a regime based on six languages would bring the shares of the excluded population down to $9-18 \%$. In addition, results show that economically and socially disadvantaged individuals are less likely to speak languages other than their own native tongue, and therefore they are much more likely to be adversely affected if the European Union stops using their language. The current full multilingual policy of the European Union based on translation and interpreting not only is (and will be for the foreseeable future) the most effective language policy among the alternatives examined; it is also the only one that is truly inclusive at a relatively reasonable cost. The British withdrawal from the European Union is likely to increase rather than decrease the importance of a multilingual language policy.


## Keywords

European Union, language policy, linguistic justice, multilingualism, translation costs

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## Introduction

The decision made by the European Union (EU) at its inception to give official status to all official languages of its Member States ${ }^{1}$ has led to an intensive debate on its costs, advantages and disadvantages. In recent years, the language regime 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 communication of the EU, and it could eventually encourage the cohesion of the EU as a whole. Usually the candidate language is English (e.g. Archibugi, 2005; Cogo and Jenkins, 2010; De Swaan, 2001; Rose, 2008; Van Parijs, 2011), and occasionally Esperanto (e.g. Christiansen, 2006; Gobbo, 2005; Selten and Frank, 2005). Other authors propose intermediate solutions based on a restricted number of official languages, for example, six - i.e. English, French, German, Italian, Polish and Spanish (Fidrmuc et al., 2010) or three - i.e. English, French and German (Ginsburgh and Weber, 2005).

In practice, EU institutions adopt a variety of de facto language regimes. The European Commission, for example, enforces a trilingual language regime in some circumstances and for certain purposes. It has argued in favour of a trilingual regime based on English, French and German for an open competition for the recruitment of administrators and assistants (see Case C-566/10 P - Italy vs. Commission, 21 June 2012, lost by the Commission; Case T-124/13, Italy vs. Commission and Case T-191/13 Spain vs. Commission, 24 September 2015, lost by the Commission). The Commission has also defended a trilingual language regime based on English, French and Spanish for a call for proposals (see Decision of the European Ombudsman on complaint 259/2005(PB)GG against the European Commission, 30 April 2008, lost by the Commission).

There are different practical arrangements as regards the languages used to publish non-legally binding documents such as the Internet webpages of the Commission's Directorates-General (DGs), calls for tender, and the guidelines of various EU funding programmes. In 2014, for example, 14 DGs out of 33 published their home pages in English only, eight DGs in English, French and German, one DG in 11 languages, and 10 DGs in 24 or 23 official languages (Gazzola, 2014: 249-250). Disparities in the access to information resulting from an unequal treatment of the official languages in the Commission's website have been occasionally the object of written questions lodged by the Members of the European Parliament (MEPs) (see, for example, the Written question E-011475/11 by Ms Nathalie Griesbeck: 'Multilingualism and the Commission's Internet sites'). MEPs' concerns about an unequal treatment of the official languages go beyond parochial nationalism. Besides being a repository of news or general information about the Commission's activities, the DGs' webpages also contain material that can have a strategic importance for economic actors such as small and medium enterprises, associations and NGOs that compete for calls for tenders, funding programmes or procurement procedures. In January 2014, for example, the Commission published in English only the guidelines of the EU funding programme Erasmus + (20142020), a programme with a budget of almost $€ 15$ billion that provides grants for a wide range of actions and activities in the fields of education, training, youth and
sport. Translations into the other official languages were provided after April, whereas the first deadline to submit project proposals was in March. According to some MEPs, belated translations of the guidelines entailed an unfair competitive advantage in favour of English-speaking citizens, associations and NGOs (see Written question E-000507/14 lodged by Mr Giancarlo Scottà and Mr Lorenzo Fontana to the Commission: 'Failure to translate the Erasmus + programme').

It is necessary, therefore, to evaluate what are the distributive effects of the use of a limited number of official languages today, and what could be the outcome of a drastic reduction in the number of EU official languages in the foreseeable future. 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, 2003). Therefore, they can be compared and evaluated on the basis of standard criteria such as effectiveness and fairness. It is necessary to clarify that, in policy evaluation, assessing the fairness of alternative policies (or scenarios) implies identifying, under each scenario, who loses, who gains, and (if possible) to what extent. 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 provides a basis for normative statements on alternative policies, but such ethical statements will not be addressed here (for a discussion of fairness in LPP, or 'linguistic justice', from the point of view of political philosophy, see De Schutter, 2007; De Schutter and Robichaud, 2015; Peled et al., 2014).

Although the academic debate on the EU language regime is characterised by a relatively high diversity of approaches, ${ }^{2}$ little empirical research has been carried out so far on the comparative evaluation of the distributive effects of a change of the EU language regime or of a reduction of the domains of use of the current official languages. Existing quantitative studies in this area tend to focus on the analysis of effectiveness and efficiency (Fidrmuc and Ginsburgh, 2007; Gazzola, 2006; Ginsburgh and Weber, 2005), and usually they do not explicitly address the question of fairness. This is somewhat surprising, as equity (together with efficiency) is a central criterion in the evaluation of language policies. In the few empirical studies discussing the distributive effects of a more or less multilingual EU language regime the number of the alternative scenarios compared is limited to two or three. For example, Gazzola and Grin (2013), using data from the Eurobarometer survey published in 2012, compute the percentage of residents who do not speak English by country. Using a similar empirical strategy and data from the first wave of the Adult Education Survey (AES2007) in 24 EU Member States, Gazzola (2014) compares a multilingual language regime with two alternative policies, i.e. a trilingual language policy based on English, French and German, and an English-only language regime. Both studies point out large and significant differences among European countries regarding the percentage of citizens that would be excluded from communication with the EU if the number of official languages were reduced. I report in the next sections some results of the studies mentioned, and I compare them with the results of this article.

This article expands research on the quantitative evaluation of the fairness of the language policy of the EU. It shows that economically and socially disadvantaged
individuals tend to be less likely to speak languages other than their own native tongue, and therefore, they are more likely to be adversely affected if the EU stops using their language. The current full multilingual policy of the EU based on translation and interpreting is not only (and will be for the foreseeable future) the most effective language policy among the alternative options usually put forward in the literature; it is also the only one that is truly inclusive at a relatively reasonable cost.

## Indicators and dataset

A language regime is the language policy of an organisation. It is defined as a set of official and working languages along with rules concerning their use for the communication within and outside the organisation, and the extent of translation and interpreting to be provided in such languages. This article focuses on the part of the EU language regime that concerns external communication, although the borders between internal and external communication are often blurred.

A distinction must be made between the inputs, the outputs and the outcomes of a language regime. The inputs are defined as 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 study, the target population consists of people resident in the EU.

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 study is the 'linguistic disenfranchisement rate', an indicator introduced by Ginsburgh and Weber (2005). It is defined as the percentage of citizens who potentially cannot understand EU documents such as regulations and calls for tenders, or oral public discussions such as the plenary meetings of the European Parliament transmitted through the Internet, because they do not master any official language. The lower the disenfranchisement rate, the higher the effectiveness of a language regime. The relationship between output and outcome is straightforward, as the value of the disenfranchisement rate depends on the extent of translation and interpreting.

The linguistic disenfranchisement rate is a relevant indicator in evaluating the EU language regime because it 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 the Eurobarometer survey on languages in Europe, 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: 140).

This article employs data from the second wave of the Adult Education Survey (AES-2011). Data were collected by Eurostat in 2011 and published at the end of 2013. 25 European countries are considered. Croatia did not participate in the survey.

Romania and the Netherlands have been excluded because of excessive missing information in the dataset. ${ }^{3}$ The sample used consists of 169,481 statistical observations; $93 \%$ of respondents are citizens of the EU living in their home country - or 'national' using the terminology of the $\mathrm{AES}-, 2.6 \%$ are EU citizens living in another EU Member State, $4.3 \%$ are non-EU citizens. The percentages of nationals, EU citizens abroad and non-EU citizens in the UK had to be extrapolated from the AES-2007 because information on citizenship in this country is missing in the AES-2011. As a result of the referendum held on 23 June 2016, the United Kingdom has decided to leave the EU. At the time of writing of this article, the negotiations to formalise the British withdrawal from the EU ('Brexit') have not started yet, and the process could last up to two years. Hence, it is not possible to predict what the EU is going to look like after 'Brexit'. As a result, any attempt to describe the future language regime of the EU without the UK is necessarily premature. Nevertheless, I discuss in the conclusions some possible consequences of Brexit on the language policy of the EU.

In this article, I focus on the residents in the EU rather than EU citizens because European legal provisions and the decisions taken by the European Parliament apply to every person residing in the Union. Nevertheless, results do not change substantially if only EU citizens are considered. All definitions apply to European residents aged 25-64 living in private households.

Besides demographic and socio-economic information on the respondents, the AES contains information on residents' native language(s) and on their knowledge of up to seven foreign languages. Data on languages were collected with respect to 49 languages, and skills in foreign languages were self-assessed by interviewees on a formally defined three-level scale of competence, that is:

- fair (I can understand and use the most common everyday expressions. I use the language in relation to familiar things and situations);
- $\operatorname{good}$ (I can understand the essentials of clear language and produce simple texts. I can describe experiences and events and communicate fairly fluently);
- proficient (I can understand a wide range of demanding texts and use the language flexibly. I master the language almost completely).

The AES, at least as regards the residents in the EU aged 25-64, is richer than the three Eurobarometer surveys on the linguistic skills of European citizens published in 2001, 2006 and 2012 that are often mentioned in the literature. The AES includes more variables and more observations. In addition, data on language proficiency are more reliable. Research in language testing has compared the results of self-assessments with teachers' grades or test scores. Results are mixed (for an overview see Luoma, 2013). Nevertheless, the research points to a generally valid conclusion: selfassessments are more accurate (using teacher's evaluation as a term of comparison) if learners 'respond to "can do" statements that define concrete language use experiences that are familiar to the learners than if they are asked to use a proficiency scale with more abstract definitions of language skills' (Ross, 1998, quoted in Luoma, 2013: 4). It is not possible to assess the accuracy of data on language skills contained
in the AES, because they are not based on objective tests. Nevertheless, one can safely assume that they are more accurate than those contained in the Eurobarometer. The AES uses explicit descriptors of language proficiency based on 'can do' scales, whereas the questionnaire of the Eurobarometer survey contains three levels of competence - that is, 'basic', 'good' and 'very good' - that are not formally defined (except for the 2001 survey). This leaves to the respondents the subjective responsibility of interpreting what such levels mean. The AES's scale facilitates the comparison with the descriptors of the Common European Framework of Reference for Languages (CEFR), which has become the standard framework for the evaluation of language skills in Europe.

A distinction must be made between the absolute disenfranchisement rate $\left(D_{a}\right)$ on one hand, and the relative disenfranchisement rate $\left(D_{r}\right)$ on the other hand. The first indicator is defined as the percentage of citizens who are linguistically disenfranchised because they have no knowledge of any of the official languages determined by a given language regime. This is the indicator originally proposed by Ginsburgh and Weber (2005), and it is defined as follows:

$$
\begin{equation*}
D_{\alpha}=1-S_{b} \tag{1}
\end{equation*}
$$

where $S_{b}$ is the percentage of residents who have at least some knowledge of at least one official language (native speakers, therefore, are included). This indicator provides a first idea of the distribution of language skills among Europeans. Yet, it is risky to put native speakers of a language on the same level as those who declare to have just a basic or intermediate level of competence of the said language. It is reasonable to assume that very good language skills are necessary to understand without too much effort legal texts, calls for tenders, webpages presenting health notices about food, discourses of a political or technical nature such as those produced by various bodies of the EU, or to lodge a complaint to the European Ombudsman. The relative disenfranchisement rate $\left(D_{r}\right)$ captures precisely this idea. $D_{r}$ is defined as follows:

$$
\begin{equation*}
D_{r}=1-\left(N S+N N S_{p}\right) \tag{2}
\end{equation*}
$$

where $N S$ stands for the percentage of native speakers of the official languages, and $N N S_{p}$ 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. ${ }^{4}$ A 'good' level of language knowledge is not likely to be enough to communicate with EU institutions without too much effort, and certainly not at the same level of confidence of native speakers of the official language or people who are proficient in it. In this article, both disenfranchisement rates are used because they denote a lower and an upper bound.

## Linguistic disenfranchisement in the EU

Four language regimes are compared. The first one corresponds to the status quo, that is, a multilingual language policy based on 22 official languages (Croatian and

Romanian are excluded from the analysis because Croatia and Romania are not included in the set of countries examined). On the basis of the alternative scenarios most frequently discussed in the literature, three counterfactuals are identified, that is:

- a hexalingual language regime including six languages, namely, English, French, German, Italian, Polish and Spanish. In terms of native speakers, these languages are the largest EU official languages;
- a trilingual language regime based on English, French and German;
- a monolingual (or English-only) language policy.

The results are presented in the last row of Table 1, and they are consistent with those reported in other studies that use different datasets. Table 1 shows net values, that is, there is no double counting. For example, someone knowing both French and English is taken into account only once when computing the disenfranchisement rate corresponding to a trilingual language regime. The AES-2011 does not contain data on the language attributes and the language skills of residents in

Table I. Absolute and relative disenfranchisement rates in the EU, by study.

| Language regime | Monolingual |  |  | Trilingual |  |  | Hexalingual |  |  | Multilingual |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{D}_{a}$ | $D_{\text {int }}{ }^{\text {b }}$ | $D_{r}$ | $D_{a}$ | $D_{\text {int }}{ }^{\text {b }}$ | $D_{r}$ | Da | $D_{\text {int }}{ }^{\text {b }}$ | $D_{r}$ | $D_{a}$ | $D_{r}$ |
| Ginsburg and Weber (2005) Eurobarometer 200I, EU-I5 | 45 | - | - | 19 | - | - | $4^{\text {a }}$ | - | - | - | - |
| Firdmuc et al. (2010) Eurobarometer 2006, EU-27 | - | 62.6 | - | - | 37.8 | - | - | 16.4 | - | - | - |
| Gazzola and Grin (2013) Eurobarometer 2012, EU-27 | 50 | 62 | 79 | - | - | - | - | - | - | 0 | - |
| Gazzola (2014) AES 2007, EU-24 | 49 | - | 81 |  | - | 55 | 12 | - | 26 | 0 | 4 |
| This study AES 201I, EU-25 | 45 | 65 | 79 |  | 39 | 49 | 8 | 14 | 19 | 0 | 4 |

${ }^{\text {a }}$ The sixth language being Dutch instead of Polish;
${ }^{\mathrm{b}}$ To facilitate comparison with Fidrmuc et al. (2010) and Gazzola and Grin (2013), I compute and report the value of a third indicator of linguistic disenfranchisement. I have named it 'intermediate disenfranchisement rate' ( $D_{\text {int }}$ ). This indicator is defined as follows:

$$
\begin{equation*}
D_{i n t}=I-\left(N S+N N S_{p}+N N S_{g}\right) \tag{3}
\end{equation*}
$$

where $\mathrm{NNS}_{\mathrm{g}}$ is the percentage of non-native speakers of the official languages declaring a 'good' level of knowledge of at least one official language as a first or second foreign language. This indicator, nevertheless, is not used in this article.
Data are reported in percentages.
the UK. Moreover, $5.3 \%$ of residents in Ireland declare to have no native language. This may be due to some errors in data collection or to a negative attitude of some Irish native speakers of English towards this language (on this point see Mac Gréil and Rhatigan, 2009).

In order to avoid the exclusion of these two countries, I assume that all residents in the UK and Ireland are either native speakers of English or proficient in English as a foreign language according to the definition provided above. As a result of this choice and of the omission of three non-English speaking countries (Croatia, Holland and Romania), in this study, the percentage of people knowing English in Europe is slightly overestimated.

Table 1 shows that there is a significant difference between absolute and relative disenfranchisement rates. This implies that, on average, residents in the 25 countries examined do not have high skills in foreign languages. For example, $55 \%$ of residents in the sample declare themselves as having at least a fair knowledge of English, including native speakers. Yet, the percentage of residents who declare to be native speakers of English or proficient non-natives is much lower ( $13 \%$ and $8 \%$ of the sample, respectively). Data reveal that knowledge of English is still not a 'basic skill' or a universal lingua franca in Europe yet. In 25 countries considered, between $45 \%$ and $79 \%$ of the population either do speak it or know it to a level that is not likely to be high enough to take part in EU business without excessive effort.

The hexalingual and trilingual language regimes would generate positive and considerable disenfranchisement rates. As a result, the current multilingual language regime is the most effective language policy among the four alternatives examined. The positive value of the relative disenfranchisement rate associated with the multilingual policy $(4 \%)$ is due to the presence of different minorities in some Member States, notably, the Russian-speaking minority in the Baltic countries, and the Arabic-, Serbo/Croatian- or Turkish-speaking residents with limited proficiency in the official language of the country of residence. A positive, although rather 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 $4 \%$ of residents in the 25 states considered are (relatively) linguistically disenfranchised anyway, the additional (or marginal) $D_{r}$ associated with the monolingual language regime is equal to $75 \%$.

The disenfranchisement rates significantly vary across countries, as shown in Table 2.

The $D_{a}$ resulting from a monolingual language regime is higher than $50 \%$ in 12 countries out of 25 , and the $D_{r}$ is at least $90 \%$ in 11 countries. 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 one-third of residents in 12 countries out of $25 . D_{r}$ is higher than $90 \%$ in nine countries. The relative disenfranchisement rate is positive and above $5 \%$ in Austria, Germany and France, even when German and French are included amid the set of official languages. This is

Table 2. Absolute and relative disenfranchisement rates, by country.

| Language regime | Monolingual |  | Trilingual |  | Hexalingual |  | Multilingual |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $D^{a}$ | $D^{r}$ | $D^{a}$ | $D^{r}$ | $D^{a}$ | $D^{r}$ | $D^{a}$ | $D^{r}$ |
| Austria | 33 | 82 | 0 | 7 | 0 | 6 | 0 | 6 |
| Belgium | 51 | 87 | 22 | 47 | 21 | 46 | 1 | 4 |
| Bulgaria | 77 | 95 | 72 | 94 | 71 | 94 | 8 | 8 |
| Cyprus | 20 | 65 | 20 | 64 | 20 | 64 | 0 | 11 |
| Czech Rep. | 64 | 92 | 46 | 90 | 45 | 90 | 0 | 1 |
| Denmark | 9 | 66 | 8 | 64 | 8 | 63 | 0 | 3 |
| Estonia | 42 | 88 | 36 | 87 | 36 | 87 | 10 | 26 |
| Finland | 11 | 74 | 10 | 73 | 10 | 73 | 0 | 2 |
| France | 52 | 93 | 1 | 5 | 1 | 5 | 1 | 4 |
| Germany | 34 | 89 | 0 | 6 | 0 | 5 | 0 | 5 |
| Greece | 48 | 89 | 46 | 88 | 46 | 88 | 1 | 6 |
| Hungary | 76 | 94 | 66 | 92 | 66 | 92 | 0 | 0 |
| Ireland ${ }^{\text {§ }}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Italy | 55 | 95 | 43 | 92 | 0 | 3 | 0 | 3 |
| Latvia | 51 | 92 | 41 | 91 | 40 | 91 | 3 | 36 |
| Lithuania | 63 | 93 | 52 | 92 | 41 | 85 | 0 | 9 |
| Luxembourg | 14 | 84 | 2 | 11 | 2 | 10 | 2 | 9 |
| Malta | 11 | 50 | 11 | 49 | 10 | 48 | 0 | 0 |
| Poland | 68 | 95 | 57 | 93 | 0 | 0 | 0 | 0 |
| Portugal | 57 | 90 | 47 | 86 | 42 | 84 | 0 | 1 |
| Slovenia | 36 | 81 | 23 | 77 | 21 | 74 | 1 | 10 |
| Slovakia | 66 | 95 | 49 | 92 | 48 | 92 | 0 | 0 |
| Spain | 69 | 94 | 62 | 91 | 0 | 6 | 0 | 6 |
| Sweden | 12 | 62 | 12 | 61 | 11 | 60 | 1 | 8 |
| United Kingdom ${ }^{\S}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Eurostat, 2013, AES.
Data (EU-25) are reported in percentages.
§In order to overcome a lack of adequate data for Ireland and the UK, I make the hypothesis that all residents in these two countries are either native speakers of English or proficient in English as a foreign language. For this reason, the disenfranchisement rate is equal to zero.
due to the presence of citizens with a foreign background and immigrants from other EU countries with limited knowledge of English, French or German. This proportion could rise as a result of an increasing mobility in Europe and of recent massive migration flows from the Middle East and Africa.

Adding Italian, Polish and Spanish drastically reduces $D_{a}$ in Italy, Poland, Spain, and to a much lesser extent in Lithuania, Portugal and Slovenia. The full
multilingual language regime, on the contrary, does not create high absolute disenfranchisement rates within European countries, with the exception of Estonia and partially Latvia. Results for Bulgaria must be interpreted with caution. ${ }^{5}$ The relative disenfranchisement rate associated with a full multilingual regime is rather high in Cyprus, Luxembourg, Sweden or Slovenia, mainly as a result of immigrants or minorities without a very good knowledge of the local official language. This raises different interesting questions on the need for a language policy for new minorities issued from migration. For reasons of space, nevertheless, such questions cannot be addressed here.

In conclusion, the current multilingual policy of the EU is not in the absolute the most effective way to inform Europeans about the EU; in certain countries, additional languages may be useful to minimise linguistic exclusion. Nevertheless, it is certainly the most effective scenario among the four alternative policies compared in this study.

## Linguistic disenfranchisement by social group

It is quite logical that a monolingual or a trilingual language regime would disadvantage the citizens of some Member States more than others. It is less obvious, nevertheless, which social groups within Member States 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 this choice.

The AES allows us to characterise respondents according to some relevant socio-economic dimensions, that is, age, income status, educational level achieved and occupational status. Obviously, there are other socio-economic variables that would be worth considering, but the AES provides information only on the socioeconomic variables just mentioned. Consequently, I use the said variables to build four macro social groups, and I examine the variation of the disenfranchisement rate within each group. The notion of 'social group', therefore, is employed in a broad sense in order to include individuals with similar socio-economic characteristics.

Table 3 shows the distribution of $D_{a}$ and $D_{r}$ by age group. It puts the results of Table 1 into perspective by introducing a time variable, because studying the change in the disenfranchisement rates across generations provides a first idea of the likely evolution of linguistic exclusion in the future.

The 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 respondents. For example, the absolute disenfranchisement rate resulting from an English-only

Table 3. Absolute and relative disenfranchisement rates, by age group.

| Age group |  | $25-34$ | $35-44$ | $45-54$ | $55-64$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Language regime |  |  |  |  |  |
| Monolingual | $D_{a}$ | 30 | 41 | 49 | 59 |
|  | $D_{r}$ | 74 | 77 | 82 | 83 |
| Trilingual | $D_{a}$ | 17 | 24 | 28 | 34 |
|  | $D_{r}$ | 48 | 49 | 49 | 51 |
| Hexalingual | $D_{a}$ | 5 | 7 | 9 | 12 |
|  | $D_{r}$ | 19 | 19 | 19 | 21 |
| Multilingual | $D_{a}$ | 0 | 0 | 1 | 0 |
|  | $D_{r}$ | 4 | 4 | 3 | 2 |

Eurostat, 2013, AES.
Data (EU-25) are reported in percentages.
language regime is equal to $59 \%$ among residents aged $55-64$, and $30 \%$ among those aged 25-34 (recall that native speakers of English are included). The same trend can be observed for all three language regimes alternative to the status quo.

Surprisingly, the $D_{r}$ does not vary too much across generations. The difference between the relative disenfranchisement rate resulting from monolingualism among residents aged 55-64 and the corresponding rate among those aged 25-34 amounts to just $9 \%$; this gap is much lower than the difference measured through $D_{a}$ (i.e. $29 \%$ ). $D_{r}$ is virtually constant across age groups in the trilingual and hexolingual scenarios. As regards the multilingual language regime, $D_{r}$ is slightly higher among the younger respondents, probably as a result of migration flows.

The results show that, on average, young people are more likely to have acquired at least some knowledge of foreign languages than the older generation, as shown by the difference in $D_{a}$ across cohorts. Nevertheless, they have not learnt them much better, as revealed by the relatively little intergenerational variance of $D_{r}$. This observation is relevant for decision-makers, because it points out that the need for translation and interpreting in the EU is not likely to change drastically in the foreseeable future.

Income is another important variable that must be considered. In the AES respondents' income is defined in relative terms using statistical deciles, which makes it possible to compare, at least to a certain extent, the income status of residents across different countries. The variable income in the AES is defined as the share of net monthly income of the household accruing to respondents. Due to some incongruences in data collection, ${ }^{6}$ it is not possible to provide a contingency table in which the relationship between the disenfranchisement rates and income status is examined for the EU as a whole. Nevertheless, it is possible to carry out a reliable empirical analysis at the individual country level for a subset of Member States.

I estimate 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' in 12 countries. The correlation is measured through the Spearman's rank correlation coefficient ( $\rho$ ). ${ }^{7}$ A positive correlation between the two variables means that people belonging to the highest deciles of the income distribution are more likely to have at least some knowledge of at least one official language as a foreign language, and, therefore, they are less likely to be disenfranchised if their mother tongue is not used for official purposes. In order to avoid spurious correlations, native speakers of the official language(s) must be excluded.

In Table 4, countries have been clustered in four groups reflecting the strength of the statistical correlation between the two variables considered. These groups are defined by the range of the value of $\rho$; the higher the value of $\rho$, the stronger the correlation.

The Spearman's rank correlation coefficient is positive and statistically significant in all 12 countries. The estimates reveal a correlation between the level of respondents' income and their language skills. In other words, the higher the income status, the lower the absolute disenfranchisement rate. For reasons of space, I cannot discuss in detail the relationship between income status and $D_{r}$. Suffice it to say that the value of $\rho$ is still positive but lower than the value of $\rho$ in Table 4.

There are significant differences among Member States. In Hungary or Portugal, the relationship between income and $D_{a}$ is stronger than in Denmark or Italy. This can be due to the fact that in the latter two countries, no matter what the level of income of respondents is, some knowledge of foreign languages is quite widespread among the population (e.g. in Denmark), or, alternatively, it is not widespread among residents (e.g. in Italy). Further, Table 4 shows that the correlation between income status and the disenfranchisement rate is independent of the language

Table 4. Correlation between income status (in deciles) and the knowledge of at least one official language, selected EU countries.

| Spearman's <br> rank correlation <br> coefficient | Monolingual | Language regime |  |
| :--- | :--- | :--- | :--- |
| $0.30-0.40<$ | Estonia, Hungary, Portugal | Hungary, Portugal | Hungary, Portugal |
| $0.20-0.30<$ | Slovakia, Latvia, Spain | Estonia, Latvia, <br> Slovakia, Spain, | Estonia, Latvia, Slovakia, |
| $0.10-0.20<$ | Austria, Finland, Italy, <br> Luxembourg, Malta | Finland, Italy, Malta | Finland, Malta |
| $0-0.10<$ | Denmark | Denmark | Denmark |

[^1]regime chosen. Putting it differently, any alternative to the status quo would disenfranchise residents with a relatively lower income more often than residents who have a relatively higher income. By contrast, the current language regime does not entail significant income-related inequalities among European residents, because the official languages used correspond, with some exceptions, to their mother tongue or primary language of education.

Disenfranchisement rates, as expected, are correlated with education. Table 5 presents the distribution of $D_{a}$ and $D_{r}$ according to the highest level of education successfully completed by respondents. ${ }^{8}$ The levels of education are defined following the ISCED classification (ISCED stands for 'International Standard Classification of Education', a system developed by UNESCO to facilitate the comparison between the educational systems of different countries).

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 the respondents' level of education on the other hand. A trilingual language regime, for example, would disenfranchise one-fourth of all residents who have successfully completed an upper secondary level of education, but only $8 \%$ of those who have achieved a tertiary level of education (recall that Table 5 presents percentages based on the whole population; thus, native speakers are included). Nevertheless, the relative disenfranchisement rates are still high, and they tend to be so also for people who have obtained a university degree. For example, a monolingual language regime would (relatively) disenfranchise almost two-thirds of residents who have achieved a tertiary level education. A high level of proficiency in foreign languages in Europe is still not the norm, not even among the most educated people. The relative disenfranchisement rate resulting from a full multilingual language regime is not negligible in the groups of respondents who achieved a primary or a lower secondary level of education. This can be explained by the fact that, on average, non-EU citizens who have low levels of education tend to have low skills in the dominant language of the host country.

Clearly, the socio-economic variables defined in this article should not be considered in isolation. I estimate the statistical correlation between the level of education achieved by respondents (defined in six ordinal ranks) and their income status (defined in ten ordinal ranks). The correlation, measured by the Spearman's rank correlation coefficient, is positive and statistically significant at the $1 \%$ significance level in all countries reported in the first column in Table 4. It ranges from 0.16 in Denmark to 0.51 in Portugal. As expected, on average, residents who are less educated tend to belong to the lowest deciles of the income distribution, and they are less likely to have good skills in foreign languages.

Table 5 also shows the distribution of the disenfranchisement rates according to the main occupational status of respondents. ${ }^{9}$ Both $D_{a}$ and $D_{r}$ tend to be unevenly distributed across occupational statuses, with the partial exception of the hexalingual and multilingual scenarios. $D_{a}$ is in general lower for respondents carrying out a job than for unemployed and retired people, the permanently disabled and people fulfilling domestic tasks (a variable correlated with gender). Foreign language
Table 5. Absolute and relative disenfranchisement rates, by the highest level of education or training successfully completed by the residents in the EU, and by occupational status.

| Language regime |  | Level of education |  |  |  |  | Occupational status |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Primary | Lower secondary | Upper secondary | Post-secondary non-tertiary | Tertiary | Carries out a job | Unemployed | Retired | Permanently disabled | Domestic tasks |
| Monolingual | $D_{a}$ | 90 | 68 | 47 | 26 | 17 | 39 | 59 | 61 | 61 | 57 |
|  | $D_{r}$ | 98 | 87 | 82 | 82 | 64 | 78 | 87 | 83 | 72 | 81 |
| Trilingual | $\mathrm{D}_{a}$ | 63 | 46 | 25 | 14 | 8 | 21 | 41 | 35 | 41 | 37 |
|  | $D_{r}$ | 76 | 65 | 48 | 43 | 34 | 45 | 68 | 52 | 52 | 57 |
| Hexalingual | $D_{a}$ | 22 | 9 | 10 | 6 | 2 | 7 | 11 | 12 | 12 | 7 |
|  | $D_{r}$ | 35 | 19 | 21 | 18 | 13 | 19 | 24 | 20 | 17 | 17 |
| Multilingual | $D_{a}$ | I | 1 | 0 | 0 | 0 | 0 | I | 0 | 1 | 1 |
|  | $D_{r}$ | 8 | 6 | 3 | 3 | 2 | 3 | 7 | 2 | 2 | 7 |

Source: Eurostat, 2013, AES.
Data (EU-25) are reported in percentages.
skills, therefore, tend to be associated with a better employment status, which is consistent with the literature showing a positive effect of education and language skills on income and employability (for an overview see Gazzola et al., 2016). Differences among occupational statuses as regards the value of $D_{r}$ are weaker.

## Discussion and conclusions

This article demonstrates that Europeans are still far from proficient in one or just a few foreign languages, thereby supporting skeptical views about the practicability of reducing the number of the official languages of the EU or restricting their current domains of use. Empirical evidence does not support the claim that an English-only or restricted multilingual language regimes (which I named trilingual and hexalingual) would contribute to the effectiveness of European communication and to its inclusiveness. Rather, the results of this study tend to show that the contrary is likely to be true, thereby confirming the conclusions of other authors (e.g. Backus et al., 2013; Barbier, 2015; Kraus, 2008). First, a full multilingual language regime is still (and will be in the foreseeable future) the most effective language policy to convey information about the EU to people living in the Union among the four alternatives analysed in this study. Second, knowledge of foreign languages tends to be more common among residents belonging to the highest deciles of the income distribution, those who have achieved a tertiary level of education, and people currently employed (for a discussion on this see also Gerhards, 2014). A drastic reduction of the official languages of the EU, therefore, would have regressive effects, because it would be particularly detrimental to the least educated people, those with the lowest income status, the unemployed, the retired, the permanently disabled and residents fulfilling domestic tasks. Among the alternatives considered, the hexalingual regime is clearly more effective than the monolingual and trilingual regimes, but it does not substantially reduce disparities among social groups in countries in which English, French, German, Italian, Spanish or Polish are not official languages.

It is worth emphasising that it is not just a blanket reduction in the number of languages that would be exclusionary. Even reducing the current domains of use of the official language entails analogous effects. Hence, evidence supports the idea that translation and interpreting currently contribute to creating a more inclusive European public space by making it possible to implement a multilingual regime based on the mother tongues or the primary language of education of the vast majority of the residents in the EU (European Commission, 2010a). To conclude on this point, the answer to the question posed in the title of this article (multilingual communication for whom?), therefore, is: the majority of the residents in the EU, and in particular the economically and socially disadvantaged individuals.

In order to assess the relevance of my findings, I discuss some common counterarguments, that is (i) few people actually need to have access to EU documents, and those persons usually are proficient in English; (ii) the costs of a multilingual
language regime are unsustainable; (iii) the EU should adopt a long-term strategy to promote a single lingua franca to minimise linguistic exclusion.

It can be argued that not all Europeans are interested in the business of the EU, that just the elite actually needs to be informed about the process and the outcomes of EU policy-making, and about EU legal texts. If it were true that, generally speaking, 'only elites are fluent in more than one language' (Kymlicka, 2001: 214, quoted in Rose, 2008: 460), then one could argue that full multilingualism should be preserved in the European Parliament and in direct communication between the EU institutions and EU citizens, whereas a certain degree of linguistic disenfranchisement could be accepted in other circumstances (see Fidrmuc et al., 2009). The evidence available, nevertheless, shows a different picture. The AES contains data on respondents' type of occupation classified according to the International Standard Classification of Occupations (ISCO-88). Ten macrooccupation classes are defined. The first ISCO-88 class is named 'managers', and it includes different sub-specifications, i.e. 'chief executives, senior officials and legislators', 'administrative and commercial managers', 'production and specialised managers', 'hospitality, retail and other services managers'. I focus on the first subclass, that is, 'chief executives, senior officials and legislators' ( $N=948$, including native speakers), because these people are generally considered to constitute part of the European elite. The disenfranchisement rates in this sub-group of people are estimated per each language regime alternative to the status quo. The results are the following: $D_{a}=27 \%$ and $D_{r}=77 \%$ (English-only policy); $D_{a}=14 \%$ and $D_{r}=49 \%$ (trilingual language regime); $D_{a}=4 \%$ and a $D_{r}=17 \%$ (hexalingual language regime). Compare these results with those presented in Table 1 for the entire population. The results are somewhat surprising. First, as expected, the absolute disenfranchisement rates among European chief executives, senior officials and legislators are lower than the average disenfranchisement rates among the entire population, but they are not low or negligible. Second, the relative disenfranchisement rates are virtually equal in both groups, showing that managers do not have much better skills in foreign languages than the average. Therefore, a significant percentage of European chief executives, senior officials and legislators benefit from multilingual communication.

Further, as noted above, EU external communication does not involve only the production of legal or technical texts. Different actors, including citizens who receive a reply from the European Ombudsman, or youth organisations, schools and NGOs that submit proposals for international educational projects, may need to have access to programme guidelines, webpages and other official documents. This article shows that the majority of residents in the EU (and a large percentage of managers) still has little or no competence in English as a foreign language, let alone in French and German, and that those who declare to know foreign languages often speak them only at a fair or an intermediate level. Such levels may be enough to take part in a conversation, to travel abroad and to perform specific tasks in the workplace, but they are unlikely to be sufficient to participate in EU business without too much effort, or to compete on an equal footing with native
speakers. Texts such as the EU directives, calls for tender, procurement procedures are clearly demanding texts, but reading and understanding in a foreign language information on food security, passenger's rights, and the guidelines of EU funding programmes can be challenging too. Debates held during the plenary meeting of the EU Parliament or debates involving the candidates to the Presidency of the European Commission (sometimes named 'Spitzenkandidaten') are public and broadcasted via the Internet or on television. Such debates potentially concern any EU citizen. Following and understanding them requires a very good level of language competence. The tendency to underestimate the importance of the level of linguistic skills in the public sphere can lead to awkward outcomes, even within EU institutions. For example, on 5 February 2016 the European Parliament's chief of staff, Mr Klaus Welle, urged MEPs to speak slower and stick to their native language, to help the interpreters in doing their job (BBC, 2016). Some MEPs who are not native speakers of English prefer to address their peers in this language because they believe that this enables them to be better understood by a larger audience. Yet, they overestimate their language competence, the interpreters fail to understand what they say, and the message is not properly interpreted into other languages (on this point, see also Phillipson, 2003: 134).

A second counter-argument concerns the costs of the EU language policy. Some authors claim that the language regime of the EU after the last enlargement has become economically unsustainable (Cogo and Jenkins, 2010: 272). According to the last official figures available for 2012 , the EU spends roughly $€ 1.1$ billion per year on language services. This corresponds to a yearly expenditure of about $€ 2.2$ per resident, or $€ 2.7$ if I focus on residents who are at least 15 years old. It is not likely that the enlargement to Croatia in 2013 brought about substantial changes. $€ 1.1$ billion amounted to $0.0085 \%$ of the GDP of the EU in 2012 , and $1 \%$ of the budget of EU institutions and bodies. Something that costs $0.0085 \%$ of aggregate income cannot be defined as economically unsustainable. The real question is how much Europeans are willing to pay for translation and interpreting services. Giving an answer to this question is a purely subjective matter. Nevertheless, it is perhaps useful to compare the European situation with the Canadian case, one of the few countries for which data on the costs of official bilingualism exist.

From April 2006 to March 2007 included (following the calendar of the typical Canadian federal fiscal year), 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, therefore, is excluded) - amounted to 1.6-1.8 billion Canadian dollars $(\$)$, of which $\$ 0.28$ billion (roughly $€ 0.2$ billion) were spent for translation and interpreting services (Vaillancourt and Coche, 2009: 28-32). \$0.28 billion amount to $0.02 \%$ of the Canadian GDP in 2006-2007 (or $€ 3.6$ per citizen per year). Clearly, the EU and Canada are comparable only to a certain extent, because the number of services provided by the Canadian federal government to its citizens is larger than in the European case. Nevertheless, there are similarities between the
two contexts. The EU must publish official documents in different languages too, and it must provide multilingual legal procedures at the European Court of Justice. Hence, if compared the costs of translation and interpreting in the EU as a percentage of the GDP or if compared with the Canadian case, the costs of European multilingualism do not seem to be exaggerated.

Given the current distribution of language skills in the population, reducing the direct costs of the EU language regime would essentially amount to shifting the costs of non-multilingualism onto Europeans who do not know the official languages well enough, and in particular onto those who are less educated and belong to the lowest deciles of the income distribution. To the best of my knowledge, it has never been convincingly demonstrated that reducing the number of official languages would cost less on aggregate than using a centralised translation system. Rather, the contrary may be true, if the implicit costs of language policy are duly taken into account. By implicit costs (or adoption costs), I mean the costs borne by private citizens to adjust to language regime that does not include a language they master, e.g. costs for private translations or the costs of learning an official language. If such costs are taken into account, the hexalingual and the multilingual language regimes may turn out to be cheaper than the monolingual and trilingual language regimes (see the online appendix for a tentative demonstration: http://eup.sagepub.com/content/early/2016/07/28/1465116516657672/suppl/ DC1). As Pool (1991) notes 'it is wrong to claim (as is often done) that having many official languages is necessarily efficient. As more native languages are made official, translation costs rise but adoption costs fall. If all adoption prices are sufficiently large, it will be efficient to officialise all the groups' native languages. [...] The tendency to regard multiple official languages as inefficient may, then, reflect a state-centred neglect of costs incurred by individuals in adapting to language policies' (p. 503).

Another frequent counter-argument points out that disenfranchisement rates in the long-term could be reduced by vigorous and massive language acquisition planning aiming at spreading one common language, e.g. English (see for example De Swaan, 2001; Van Parijs, 2011). I do not discuss the desirability of this proposal from a normative point of view (on this point see, among others, Barbier, 2012; Grin, 2004; Lacey, 2015; Phillipson, 2012; and several contributions in De Schutter and Robichaud, 2015), and I do not address the thorny question of the role (if any) of a common language in the creation of an EU identity (see Kraus, 2008; Romaine, 2013: 123-124 for a discussion). I limit myself to questioning the feasibility of this plan.

First, EU institutions cannot spread any specific language using education or the media because the treaties give no competence to the EU in these policy areas in accordance with the subsidiarity principle. The EU controls just one of the levers of language policy (probably not the most important one), that is, the provision of multilingual communication to European citizens and residents. The EU can influence language learning and teaching through recommendations and funding programmes such as Erasmus + , but education policy firmly remains in the hands of the Member States or even regional authorities (e.g. the German Bundesländer).

Each state or region has its own language policy that responds to local needs (e.g. giving priority to the official language of the neighbouring country).

Second, the effectiveness of European education systems in teaching foreign languages should not be overestimated. Results reported in this article and other sources (e.g. Eurydice, 2012) reveal that younger generations learn foreign languages more often than in the past. This is certainly good news, but the average level of competence achieved by pupils and students is still deceptive. For example, English has been promoted as a first foreign language in European schools for decades, but the results are largely unsatisfactory. The First European Survey on Language Competences (European Commission, 2012b) tested the competence in different foreign languages (mostly English and sometimes French) on a representative sample of 53,000 pupils in the last year of lower secondary education (or ISCED2) or the second year of upper secondary education (or ISCED3) in several European countries. The survey concluded that 'language competences provided by educational systems still need to be significantly improved’ (European Commission, 2012b: 5). Just a minority of pupils (28\%) reach a level B2 of the 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 'good' (and not 'proficient') in the scale used in the AES.

Third, the development of a bilingual education system through new teaching methods such as content and language integrated learning (CLIL) and computerassisted language learning (CALL) (Scott and Beadle, 2014) requires considerable investments in teacher training. Member States are not necessarily willing to give priority to such investments, especially in Southern Europe where the public sector is subject to fiscal austerity measures. For example, Law $N^{\circ}$ 107/2015 in Italy introduced CLIL into the public education system, but it specifies that its implementation must take place 'without draining further resources on public finances' (Article 1.7). ${ }^{10}$

Finally, old education problems persist and new problems arise. Almost onefourth of 15 year olds are low performers in reading literacy in their mother tongue, and this share has increased in recent years (European Commission, 2010b: 3). Recent massive migration flows could add complexity to the current situation, because 'students with a migrant background score systematically less well than domestic students, notably because of insufficient command of the language of instruction' (European Commission, 2008: 20). As different young people in Europe still experience some difficulty in reading in their mother tongue or in developing good skills in the official language of the host country, it is likely that they would have even more serious problems in understanding complex texts written (or uttered) in a foreign language.

Clearly, budget constraints at the EU level cannot be ignored, and no one expects that every single document be translated into all official languages. Nevertheless, it is probably too early to dismiss EU translation and interpreting services as a luxury good altogether. It is incumbent to policy-makers to evaluate trade-offs and make decisions. The article does not have particular normative
implications (not primarily, at least). The analysis is meant to inform EU policymakers about the allocative and distributive effects of EU language policy today and in the foreseeable future, thereby helping them in making more informed decisions. It is worth noting, however, 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 goes beyond its simple communicative value. There are also symbolic costs resulting from depriving many Europeans of the opportunity to use their native language within the EU. Such costs should not be neglected in LPP (Grin and Vaillancourt, 1997).

A final remark on the British withdrawal from the European Union is in order. At the time of writing (June 2016) it is not possible to predict how the EU will look like after Brexit. For a lack of better data, I compute the absolute and the relative disenfranchisement rates as in Table 1, but excluding the UK from the set of countries. The results show that Brexit is likely to increase the importance of a multilingual approach in managing EU communication. In the 24 countries examined, an English-only language policy would exclude $51 \%$ to $90 \%$ of adult residents. A language regime based on English, French and German would disenfranchise $30 \%$ to $56 \%$ of residents, whereas a regime based on six languages would bring the shares of excluded population down to $9-22 \%$. Compare these estimates with results in the last row in Table 1: after Brexit, the rates of linguistic exclusion associated with a monolingual policy, and with a trilingual and a hexalingual regime are likely to increase.

## Acknowledgements

The author wishes to thank Bengt-Arne Wickström, François Grin, François Vaillancourt, Nannette Swed, Regina Kühne, Sigbert Klinke, Till Burckhardt, and four anonymous reviewers for their valuable comments on an earlier version of this article.

## Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The financial support from the Research Executive Agency of the European Commission (Project PIEF-GA-2012-327225), from the Swiss National Science Foundation (project PBGEP1-136158 and PBGEP1-145655) and from the Center for Applied Statistics and Economics (C.A.S.E.) is gratefully acknowledged.

## Notes

1. Regulation $n^{\circ} 1 / 58$, regularly updated after every enlargement. For a detailed description of the history of the EU language regime, its legal basis and its practical implementation see Ammon (2015: 730-833), Gazzola (2006), Hanf et al. (2010: 81-162), Nißl (2011: 72127), and Van der Jeught (2015).
2. In the area of applied linguistics, see Ammon (2006, 2015: 730-833), Phillipson (2003), and Romaine (2013); Tosi (2013) collects different articles from translation studies; in
political science see, among others, Barbier (2015), De Swaan (2001), Ives (2004), Kraus (2008) and Pool (1996). Finally, valuable contributions come from political philosophy (Patten, 2007; Van Parijs, 2011).
3. In Romania, $58 \%$ of the sample did not answer questions on knowledge of foreign languages. In the Netherlands, a large percentage of respondents did not answer to questions regarding the level of knowledge of foreign languages. The estimates of the relative disenfranchisement rate for this country, therefore, are not reliable. Since this article deals with aggregate observations for Europe as a whole, using only a partial sample for those two countries would bias aggregate estimates.
4. No data exist on the level of proficiency for the third, fourth, fifth, sixth and seventh foreign language spoken by respondents (if any). Nevertheless, this is not likely to substantially bias $D_{r}$. The AES ranks respondents' foreign languages according to the level of proficiency in such languages. Thus, better spoken languages come first. It is quite unlikely that a large percentage of respondents is equally 'proficient' in three or four foreign languages in addition to their mother tongue(s).
5. No respondent declares to know Bulgarian as a first or second foreign language in Bulgaria. This is not credible, because at least some non-native speakers of Bulgarian living in Bulgaria must be proficient in this language. This might artificially inflate the value of $D_{a}$ and $D_{r}$ in this country.
6. In some countries, the distribution of statistical observations as regards the variable 'income status' is skewed towards the lowest deciles. In other countries it is skewed towards the highest deciles. This should not be possible because, by definition, a decile must contain $10 \%$ of the total number of statistical observations.
7. The Spearman's correlation tests the correlation between ordinal monotonically related variables, and it was chosen because unlike the Pearson's correlation coefficient there is no requirement for normality. Recall that $\rho$ can take values from +1 (perfect positive association of ranks) to -1 (perfect negative association of ranks).
8. The 'primary' level corresponds to $6 \%$ of the sample, the 'lower secondary' to $18 \%$, the 'upper secondary' to $43 \%$ (usually this level corresponds to the end of compulsory education), the 'post-secondary non-tertiary' to $4 \%$, and the 'tertiary' to $28 \%$. The 'pre-primary' level of education ( $0.8 \%$ of the sample) is ignored.
9. I focus on the following groups, formally defined in the AES as 'people carrying out a job or profession', which includes unpaid work for a family business, holding an apprenticeship or paid traineeship ( $69 \%$ of the sample), 'unemployed' $(10 \%$ ), 'retired' $(8 \%)$, 'permanently disabled' ( $3 \%$ ), and people 'fulfilling domestic tasks' ( $7 \%$ ). Table 5 disregards other formally defined occupational statuses, that is, 'pupils, students, people in training', and respondents 'involved in compulsory military service' as they represent a small percentage of the sample. In Hungary, the answers 'retired', 'permanently disabled', people 'fulfilling domestic tasks', 'pupils, students, people in training', and respondents 'involved in compulsory military service' were merged into one single variable. Nevertheless, this does not affect the reliability of our results.
10 . As one of the reviewers of this article has noted, the EU could use funds from the Cohesion Policy to support language learning. In particular, the so-called Objective 3 is dedicated to education, training and employment. This would be consistent with the Council conclusions of 20 May 2014 on multilingualism and the development of language competences (OJ C 183, 14.6.2014, p. 26-29), and with the Council Resolution of

21 November 2008 on a European strategy for multilingualism (OJ C320/1, 16/12/2008, p. 1-3).

## References

Ammon U (2006) Language conflicts in the European Union: On finding a politically acceptable and practicable solution for EU institutions that satisfies diverging interests. International Journal of Applied Linguistics 16: 319-338.
Ammon U (2015) Die Stellung der deutschen Sprache in der Welt. Berlin: De Gruyter.
Archibugi D (2005) The language of democracy: Vernacular or Esperanto? A comparison between the multiculturalist and cosmopolitan perspectives. Political Studies 53(3): 537-555.
Backus A, Gorter D, Knapp K, et al (2013) Inclusive multilingualism: Concept, modes and implications. European Journal of Applied Linguistics 1(2): 179-215.
Barbier J-C (2012) 'Une seule bannière linguistique pour une justice globale', recension de Linguistic Justice for Europe and for the World, Philippe Van Parijs. Revue francaise de science politique 62(3): 469-471.
Barbier J-C (2015) English speaking, a hidden political factor of European politics and European integration. Politiche Sociali/Social Policies 2: 185-218.
BBC (2016) Fast-talking MEPs urged to slow down for interpreters, 5 February. Available at: http://www.bbc.com/news/world-europe-35501198 (accessed 30 May 2016).
Christiansen PV (2006) Language policy in the European Union European/English/Elite/ Equal/Esperanto Union? Language Problems \& Language Planning 30(1): 2-44.
Cogo A and Jenkins J (2010) English as a lingua franca in Europe: A mismatch between policy and practice. European Journal of Language Policy 2(2): 271-294.
De Schutter H (2007) Language policy and political philosophy: On the emerging linguistic justice debate. Language Problems \& Language Planning 31(1): 1-23.
De Schutter H and Robichaud D (eds) (2015) Linguistic Justice. Van Parijs and his Critics (Special issue of Critical Review of International Social and Political Philosophy)18(2).
De Swaan A (2001) Words of the World: The Global Language System. Cambridge: Polity Press.
European Commission (2008) Impact Assessment: Accompanying Document to the Communication 'Multilingualism: An Asset for Europe and A Shared Commitment'. Brussels: European Commission.
European Commission (2010a) Contribution de la traduction à la société multilingue dans l'Union européenne. Brussels: European Commission; Directorate-General for Translation.
European Commission (2010b) Youth on the Move: An Initiative to Unleash the Potential of Young People to Achieve Smart, Sustainable and Inclusive Growth in the European Union. Luxembourg: European Commission.
European Commission (2012a) Europeans and their languages. Brussels: European Commission.
European Commission (2012b) First European Survey on Language Competences: Executive Summary. Brussels: European Commission.
Eurydice (2012) Key Data on Teaching Languages at School in Europe 2012. Brussels: European Commission.
Fidrmuc J and Ginsburgh V (2007) Languages in the European Union: The quest for equality and its cost. European Economic Review 51: 1351-1369.
Fidrmuc J, Ginsburgh V and Weber S (2009) Voting on the choice of core languages in the European Union. European Journal of Political Economy 25(1): 56-62.

Fidrmuc J, Ginsburgh V and Weber S (2010) Scenarios beyond unanimity: Could a qualified majority of Member States alleviate the burden of multilingualism in Europe? In: Hanf D, Malacek K and Muir E (eds) Langues et construction européenne Brussels: Peter Lang, pp. 259-279.
Gazzola M (2006) Managing multilingualism in the European Union: Language policy evaluation for the European Parliament. Language Policy 5(4): 393-417.
Gazzola M (2014) Partecipazione, esclusione linguistica e traduzione: Una valutazione del regime linguistico dell'Unione europea. Studi Italiani di Linguistica Teorica e Applicata 43(2): 227-264.
Gazzola M and Grin F (2013) Is ELF more effective and fair than translation? An evaluation of the EU's multilingual regime. International Journal of Applied Linguistics 23(1): 93-107.
Gazzola M, Grin F and Wickström B-A (2016) A concise bibliography of language economics. In: Gazzola M and Wickström B-A (eds) The Economics of Language Policy. Cambridge, MA: MIT Press, pp. 53-92.
Gerhards J (2014) Transnational linguistic capital: Explaining multilingualism and English proficiency in 27 countries. International Sociology 29(1): 56-74.
Ginsburgh V and Weber $S$ (2005) Language disenfranchisement in the European Union. Journal of Common Market Studies 43(2): 273-286.
Gobbo F (2005) The European Union's need for an international auxiliary language. Journal of Universal Language 6: 1-28.
Grin F (2003) Language planning and economics. Current Issues in Language Planning 4(1): 1-66.
Grin F (2004) L'anglais comme lingua franca: questions de coût et d'équité. Commentaire sur l'article de Philippe Van Parijs. Économie Publique 15(2): 33-41.
Grin F and Vaillancourt F (1997) The economics of multilingualism: Overview and analytical framework. Annual Review of Applied Linguistics 17: 43-65.
Hanf D, Malacek K and Muir E (eds) (2010) Langues et construction européenne. Brussels: Peter Lang.
Ives P (2004) Language, representation, and suprastate democracy: Questions facing the European Union. In: Laycock D (ed.) Representation and Democratic Theory. Vancouver, BC, Canada: UBC Press, pp. 23-47.
Just RE, Hueth DL and Schmitz A (2004) The Welfare Economics of Public Policy: A Practical Approach to Project and Policy Evaluation. Cheltenham: Edward Elgar.
Kraus PA (2008) A Union of Diversity: Language, Identity and Polity-Building in Europe. Cambridge: Cambridge University Press.
Kymlicka W (2001) Politics in the Vernacular. Oxford: Oxford University Press.
Lacey J (2015) Considerations on English as a global lingua franca. Political Studies Review 13(3): 363-372.
Luoma S (2013) Self-assessment. In: Chapelle CA (ed.) The Encyclopedia of Applied Linguistics. Oxford: Blackwell, Available at http://onlinelibrary.wiley.com/book/10. 1002/9781405198431 (accessed 30 May 2016).
Mac Gréil M and Rhatigan F (2009) The Irish language and the Irish people. Report on the attitudes towards, competence in and use of the Irish language in the Republic of Ireland in 2007-'08. National University of Ireland, Maynooth.
Nißl S (2011) Die Sprachenfrage in der Europäischen Union. Möglichkeiten und Grenzen einer Sprachenpolitik für Europa. München: Herbert Utz.

Patten A (2007) Theoretical foundations of European language debate. In: Castiglione D and Longman C (eds) The Language Question in Europe and Diverse Societies. Portland, OR: Hart Publishing, pp. 15-36.
Peled Y, Ives P and Ricento T (2014) Introduction to the thematic issue: Language policy and political theory. Language Policy 13(4): 295-300.
Phillipson R (2003) English-Only Europe? Challenging Language Policy. London: Routledge.
Phillipson R (2012) Review essay: Languages, genocide and justice in the European integration process. Journal of Contemporary European Studies 20(3): 377-414.
Pool J (1991) The official language problem. American Political Science Review 85(2): 495-514.
Pool J (1996) Optimal language regimes for the European Union. International Journal of the Sociology of Language 121: 159-179.
Romaine S (2013) Politics and policies of promoting multilingualism in the European Union. Language Policy 12: 115-137.
Rose R (2008) Political communication in a European public space: Language, the Internet and understanding as soft power. Journal of Common Market Studies 46(2): 451-475.
Ross S (1998) Self-assessment in second language testing: A meta analysis of experimental factors. Language Testing 15(1): 1-20.
Scott D and Beadle S (2014) Improving the effectiveness of language learning: CLIL and computer assisted language learning. Brussels: European Commission.
Selten R and Frank HG (2005) Für Zweisprachigkeit in Europa/Por dulingveco en Eǔropo. Argumente und Dokumente. Paderborn: Ifb Verlag.
Tosi A (ed.) (2013) The EU Multilingual Translation in An Ecology of Language Perspective vol 23 of the International Journal of Applied Linguistics. Oxford: Blackwell.
Vaillancourt F and Coche O (2009) Official Language Policies at the Federal Level in Canada: Costs and Benefits in 2006. Vancouver, BC, Canada: Institut Fraser.
Van der Jeught S (2015) EU Language Law. Groningen: Europa Law Publishing.
Van Parijs P (2011) Linguistic Justice for Europe and for the World. Oxford: Oxford University Press.


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[^1]:    Eurostat, 2013, AES.
    The Spearman's rank correlation coefficient is always statistically significant at the $1 \%$ level.

