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Immigrant disadvantage in the labour market: the role of attitudinal context

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ABSTRACT

There is ample evidence that immigrants are at a disadvantage in the labour market. Previous studies show that discrimination and devaluation are important factors in explaining why immigrants are occupationally segregated. Three kinds of discriminatory behaviours can be distinguished: aversions, cognitive biases, and erroneous attributions. The present article is part of the debate on the mechanisms that generate inequality and argues that the attitudinal context (social norm) influences labour market outcomes by moderating the impact of these three discriminatory behaviours. This idea is empirically examined in an analysis of the role of openness towards immigrants on the immigrant-native occupational status gap and in the comparative advantage of their language skills. Data from the Adult Education Survey is modelled together with contextual data from the European Social Survey using country fixed-effects regressions. The results indicate that immigrants are at a disadvantage, although the extent of this disadvantage varies significantly among countries partly due to the influence of openness towards immigrants.

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1. Introduction

Labour market inequalities associated to ethnicity or race is a problem that social science is attempting to shed light on. In Europe, there is evidence of inequality between natives and immigrants, the latter being more unemployed (the rate was almost twice for them during several past years) and overrepresented in low-skilled jobs (13% more immigrant workers than natives in 2012/13) (OECD/EU 2015: chapter 5–6). Although occupational segregation may be due to the differences in human capital, both observational and experimental studies have shown that there is discrimination in the labour market (Heath and Cheung 2006; Brynin and Güveli

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2012; Zschirnt and Ruedin 2016). The reasons behind discriminatory behaviour have motivated an academic debate. While some authors believe it is a problem of uncertainty in the recruiting processes, others believe it is a problem of ethnic prejudice or racial attitudes (OECD 2013: chapter 4; Pager and Karafin 2009; Quillian 2008). This article contributes to the debate by analysing the importance of a common denominator that moderates discriminatory behaviours: the social norm or the attitudinal context.

Although the relationship between the social norm and discrimination is implicit in many studies, a theoretical framework to explain it has not been developed and only limited empirical evidence has been offered (see Carlsson and Rooth 2012). The attitudinal context can be an important moderator of discriminatory behaviour because it lays the basis for the legitimation and formation of aversions, prejudice, and erroneous attributions (Moss and Tilly 2001; Bobo and Kluegel 1997; Sherif and Sherif 1964). This article focuses on immigrant disadvantages, but the approach can be used to study other types of inequalities (gender, race, etc.). Thus, it is framed in the line of studies that tries to understand the 'mechanisms of ascriptive inequality' (Reskin 2003).

The article empirically analyses this approach by measuring the impact of attitudinal context, operationalised by the construct of openness towards immigrants, on the extent of the immigrant disadvantage. The disadvantage has been measured by the occupational status gap between natives and immigrants and the comparative advantage of their language skills – after controlling for human capital, social demographics, social background, degree of acculturation and social capital. Language skills have been studied because of their importance to the global and service economy (Fidrmuc and Fidrmuc 2016; Ginsburgh and Prieto-Rodriguez 2011) but also because of their twofold role in the labour market, since they serve both as human capital and as an ethnic marker. The analysed database combines individual and country-level information from the Adult Education Survey and the European Social Survey, respectively. This combination of data is analysed by several fixed-effect models to estimate the extent of disadvantages across 25 European countries and determine the influence of attitudinal context at the same time. In line with studies on the differences in income and employability, the findings show that immigrants are penalised and devalued in the labour market. However, the results also show that the immigrant disadvantage varies considerably among countries, and that this variability is partly explained by the attitudinal context about immigrants or *openness towards immigrants*.

Below we develop a conceptual framework for the existence and causes of the discrimination of immigrants and the devaluation of their language competence, and its potential links with attitudinal context. The data, the variables, the analytical strategies and the results are then described and presented. Finally, the results are discussed with reference to the theoretical background and its implications for future research and policies.

2. Theoretical background

2.1. Human capital, language and discrimination

In the European context, there is ample evidence that immigrants are at a disadvantage, as they occupy the worst positions in the occupational hierarchy (OECD/EU 2015; Kogan 2007; Heath and Cheung 2006). Studies on neoclassical economics have theorised about inequality in terms of the theory of human capital, according to which the persistence of disparity in the labour market is attributable to differences in the productivity of workers (Becker 1957, 1964). However, a wide range of studies show that human capital by itself does not explain the unequal outcomes and that immigrants are being discriminated against. The most direct evidence of ethnic discrimination in the labour market comes from field experiments (see the review of Zschirnt and Ruedin 2016), but evidence pointing in the same direction is also provided by statistical analyses (Heizmann *et al.* 2015; Brynin and Güveli 2012; Heath and Cheung 2006). Both types of study discuss a variety of labour outcomes such as employment, wages and occupational status.

A specific aspect of discrimination is competence or skill devaluation. Employers do not consider the human capital of immigrants to be comparable to that of the natives' (Friedberg 2000; Zeng and Xie 2004), which opens the debate of whether this is because of 'quality criteria' or prejudice (Holbrow 2018). Some scholars point out that the expansion of the service industry has led to a new era of labour discrimination in which the competences of minorities in terms of interaction with the public have been devalued (Moss and Tilly 2001). One of these skills is communication, a crucial component of jobs in the service sector. 'Languages' are of particular importance as they provide a competitive advantage in the globalised economy (Fidrmuc and Fidrmuc 2016; Ginsburgh and Prieto-Rodriguez 2011). The question that needs to be asked, then, is whether language competence, so important to the new economy, is devalued in the case of immigrants. Shin and Alba (2009) indicate that, for immigrants and their descendants in the United States, bilingualism is not only not rewarded, but can actually

entail penalties. Pendakur and Pendakur (2002) also found negative income differentials associated with a command of minority languages in Canada. These differentials are particularly large when it comes to mother tongues, which is why discrimination is the reason given as an explanation.

Three main arguments in the literature provide a framework that explains why employers would discriminate immigrants and devalue their human capital, such as their language competences. The first one is *explicit or taste-based discrimination*. Formalised by Becker (1957), but widely considered in the social sciences, this argument states that some employers deliberately discriminate because of their aversion or negative attitudes towards immigrants, and their underestimation of immigrants' competences due to ethnic prejudice (Moss and Tilly 2001). In the case of multilingual skills, the specific term of 'raciolinguistic ideology' has recently been proposed to account for this undervaluation (Flores and Rosa 2015; Subtirelu 2017). Since the immigrants' languages function as an ethnic marker, this framework assumes that employers associate the languages with an affiliation to the community and its identity, so they undervalue them. The second argument highlights *unconscious or implicit discrimination*. This sort of discrimination is produced by cognitive biases (Gaertner and Dovidio 2005). Psychosocial research has shown that social-categorisation processes are key to understanding intergroup relationships. A distinction is automatically generated between the ingroup, to which greater value is attached, and the outgroup, which is generally devalued (Fiske 1998; Tajfel and Turner 1986). As far as linguistic capital is concerned, cognitive bias prompts the employer to give unequal values to this competence: the languages acquired by natives are regarded as remunerable human capital, whereas the languages acquired by immigrants are regarded as a non-remunerable ethnic feature. The third argument is about *statistical discrimination*. This sort of discrimination is produced by rational decisions in situations of uncertainty. Because of the lack of information about employees' productivity, employers use membership to social groups such as race or sex (signals) to infer it (Arrow 1998). Discrimination occurs when individuals whose productivity is higher than their group means are paid less or employed in lower status occupations. A variant of this argument is 'erroneous discrimination' (England and Lewin 1989), according to which the information about groups is biased and leads to mistaken inferences. The language of immigrants can be seen by employers as less productive due to the supposed transaction costs that would entail in both interaction with coworkers and clients (Lang 1993).

The evidence about occupational status gaps and the relative advantage of language skills in European countries is limited because of the lack of controls and the kind of human capital analysed, which basically focuses on formal education and forgets other skills. The use of language skills as a measure of human capital is especially interesting to analyse immigrant devaluation, as they can be directly assessed by employers (there is no need for signal the quality of education in the country of origin). In this study, the difference in occupational status is estimated in 25 European countries after controlling for relevant variables related to human capital, portability (acculturation), social background, social capital and sociodemographic features. Although some differences may be due to these explanations, the discriminatory factors described above (aversions, cognitive biases, and erroneous attributions) can also explain another part of the inequality. The first two hypotheses in this study are that: after controlling for an extended set of individual variables, the occupational status of immigrants will generally be lower than that of natives (hypothesis 1); and the foreign languages spoken by immigrants will not be as advantageous to them as those spoken by natives because they are devalued (hypothesis 2). Thus, the residual difference will be interpreted as a *penalty* and *devaluation* produced due to the existence of discrimination in the labour market.

2.2. The moderating role of the attitudinal context

Reskin's (2003) conceptual model of the mechanisms leading to ascriptive inequality considers individual, organisational and contextual mechanisms. The three discriminatory factors discussed above – aversion, biases, and erroneous attributions – would be included in Reskin's category of 'individual factors'. However, these discriminatory factors operate in specific social contexts. The prevailing attitudes towards immigrants in society or, in other words, the degree of openness towards immigrants moderate the impact of individual discriminatory behaviours on the creation of inequality.

Explicit attitudes are clearly connected to social context, which establishes the conditions that reduce or exacerbate discriminatory intentions. Theories on *symbolic racism* or *laissez-faire racism* (Bobo *et al.* 1997) suggest that there is an attitudinal structure resulting from intergroup relationships, which forms attitudes and prejudices that have direct consequences on perceptions and behaviours (Bobo and Kluegel 1997). Thus, in social environments with high degrees of interethnic tolerance, it will be harder for xenophobic attitudes to emerge and discriminatory behaviours will be less legitimised. The attitudinal context also has an impact on the formation of subconscious

prejudices or implicit attitudes. Social psychology has dealt with this question, and these prejudices and attitudes have been shown to be the result of the internalisation of social norms by socialisation and adaptation to reference groups (Sherif and Sherif 1964; Crandall *et al.* 2002). Finally, as far as attributions are concerned, it is easy to believe that the cultural environment affects how employers make assumptions about the productivity of the members of social groups (ethnic or racial in this case). In the process of 'Bayesian' evaluation (Pager and Karafin 2009), employers not only use objective information about groups, but also the biased information and attitudes transmitted through the social environment, being specially influential the information provided by mass media (Klingeren *et al.* 2015; Moss and Tilly 2001:138–43).

Most recent and direct evidence about the effect of attitudes on immigrants' disadvantages comes from the study by Carlsson and Rooth (2012), which shows that call-back rates from a correspondence testing experiment are influenced by municipality immigrant attitudes in Sweden. And the importance of attitudes to immigrants in the labour market can be inferred from the study by Heizmann *et al.* (2015). It suggests that the cultural devaluation of immigrants explains the negative relation between wages and immigrant occupational composition. Despite this evidence, the extent to which attitudinal context affects the immigrants labour market disadvantage of immigrants, above and beyond other contextual determiners, is an issue that has not been sufficiently explored. This article aims to analyse this relationship by hypothesising that attitudinal context, measured by openness towards immigrants, explains the gaps in occupational status (hypothesis 3) and the relative advantage of linguistic skills (hypothesis 4) between natives and immigrants. In greater detail, attitudinal context has an indirect effect on immigrants' disadvantages because it moderates discriminatory factors (see Figure 1 for a graphic representation of the mechanism theorised). Although attitudinal context is not necessarily the cause of the aversions, biases and erroneous attributions of employers, it does have an impact on them because it determines the extent to which they are legitimated, and it broadens or reduces cognitive bias and the magnitude of the error in attributions.

3. Methods

3.1. Data

The database was created with microdata from the Adult Education Survey (years 2011/12) together with contextual information from the European Social Survey. The AES sample represents the resident population between the ages of 16 and 64 of thirty European countries. In

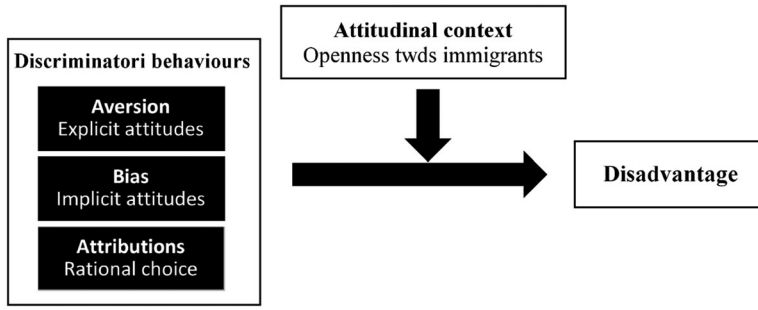

Figure 1. Illustration of the theoretical approach.

Note: It is hypothesised that the attitudinal context (openness towards immigrants) has an indirect effect on the level of disadvantage because it moderates unobserved discriminatory behaviours (tastes, biases and erroneous attributions).

this study, the sample is limited to those people currently in employment,[1] with a total of 110,358 individuals from 25 European countries that gave valid responses to the whole list of variables.[2] The sample was weighted for the analysis in accordance with the survey's technical recommendation. Specifically, the 'individual weights' were normalised in such a way that the resulting weighted sample was the same as the unweighted number of cases. The main advantages of AES are the information it provides on linguistic capital (first and second languages), the long list of sociodemographic and human-capital variables, and the fact that it can be used with large samples of both locals and immigrants.

3.2. Main variables of the study

Recent studies show that discrimination against immigrants in the labour market occurs more between occupations, in the form of barriers or glass ceilings to better paid jobs, than within occupations (Brynin and Güveli 2012). Thus, the outcome analysed is occupational status. It is operationalised by the International Socio-Economic Index of Occupational Status developed by Ganzeboom *et al.* (1992). The values of the index are the result of an optimal-scaling procedure in which the effect of occupation as an intervening variable between education and income is maximised. The latest version of the index calculated by Ganzeboom *et al.* (1992)

[1]Selection into employment might lead to biased estimations. To address this possibility, we ran a two-step Heckman procedure.

[2]Although the AES survey was conducted in more than 30 countries, only those with information for the attitudinal context (openness towards immigrants) available in the ESS were used: Austria, Belgium, Bulgaria, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Estonia, Greece, Spain, Finland, France, Hungary, Ireland, Italy, Latvia, Netherlands, Norway, Poland, Portugal, Sweden, Slovenia, Slovakia.

from the International Social Survey programme for 2002–2007 was used (www.harryganzeboom.nl/isco08/qa-isei-08.htm), and the scores were assigned to 2-digit occupations in AES (the maximum disaggregation of occupations allowed by the survey). Since the scale ranges from 10 to 69, the variable was rescaled to give a more intuitive range from 0 to 100.

The independent variables used are 'birthplace' and 'foreign language fluency', measured at the individual level, and 'openness towards immigrants', which is measured at the country level. Its operationalisation is described in detail below:

Immigrant status: This is operationalised as a dichotomous variable: the categories are 'native', born in the country in which the survey is carried out, and 'immigrant', born in a country other than that in which the survey is carried out. It was decided to use 'birthplace' instead of 'citizenship' because the definition of the latter varies considerably amongst countries. Although there is a wide variety of immigrant profiles, the AES survey does not enable the various groups to be subject to a detailed analysis. The biggest distinction found is between the categories of European and non-European migrants, which have been used to supplement the results obtained from the basic native-immigrant distinction.

Foreign language fluency. This is defined as fluency in languages other than the official (and co-official ones) of the country survey (or host country if we refer only to immigrants). For example, those fluent in English in Spain – where Castilian, Catalan, Basque and Galician are the official languages – are attributed with foreign language competence (FL = 1). However, those who speak one or more of the official languages – for example, Castilian and Basque – are not (FL = 0). The same logic is applied to any other country and language and for both natives and immigrants. The official and co-official languages in the 25 countries of this study were stipulated according to the information provided in Ethnologue (www.ethnologue.com). Fluency was determined by two questions in the AES. In one question, the respondents are asked about their first languages or mother tongues. And in another question the respondents are asked about which other languages they can use and the level of the two best. These levels range from proficiency to vantage to basic knowledge.[3] This

[3]The different levels of language competence that the respondent can choose in the AES survey are presented as a description and not as labels. The AES manual converts these classifications into levels on the Council of Europe scale. We establish the following attribution for this study: Proficient: I can understand a wide range of demanding texts and use the language flexibly. I master the language almost completely. Vantage: I can understand the essential of clear language and produce simple text. I can describe experiences and events and communicate fairly fluently. And Basic: I can understand and use the most common everyday expressions. I use the language in relation to familiar things and situations.

study regards native-speakers and respondents with at least a vantage level as being fluent in foreign languages.

Openness towards immigrants. This is the contextual result of individual attitudes towards immigrants. It is an operationalisation of what authors studying racial/ethnic prejudice have generically referred to as 'social norm' (Christ *et al.* 2014). It is measured with three questions conducted by the European Social Survey in 2008/9 (round 4), three years before the AES survey was carried out: 'Would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here from other countries?', 'Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries?' and 'Is [country] made a worse or a better place to live by people coming to live here from other countries?' The three questions are scored on an 11-point scale defined by the two poles of each question: 'undermined-enriched', 'bad-good' and 'worse-better', respectively. In this study, the scores of the three scales are averaged, with a resulting scale of high internal consistency ($\alpha = 0.87$). Finally, the aggregation at the contextual level (country-level) is done through the average of the weighted sample of each country and a subsequent standardisation (z scores).

3.3. Control variables: the 'net' gap between natives and immigrants

We analysed the 'net' gap between natives and immigrants and the comparative advantage of their language skills by controlling for several variables, including those referring to human capital, to portability or acculturation, to social capital and to the most important sociodemographic characteristics (see operationalisation and descriptive statistics in Appendices 1 and 2).

The basic human capital variables are educational level and potential experience (operationalised as age and its square). The sociodemographic variables used are those that typically affect wage regressions, that is sex, marital status, urbanicity, and household size. Social background is also key to understanding mobility and attainment processes (Goldthorpe *et al.* 1987). The differences between immigrants and natives may be due to a question of social class and not to ethnic group or race. Since the AES survey did not provide complete information about parents' employment, family status was measured using the parents' educational level (averaging form a scale of three levels: 1 = secondary or lower, 2 = upper-secondary and 3 = tertiary). Finally, two variables that are used as key predictors of immigrant human-capital portability were also

obtained (Chiswick 1978; Chiswick and Miller 1995): time of residence in the country of destination (years since migration) and fluency in the language of the country.

Together with these variables, we also considered specific controls, such as IT experience and social capital (as a proxy for influence networks). A considerable number of studies have theorised and proved that there is social polarisation due to 'skill-biased technological change' (Autor *et al.* 1998). In fact, the differences in employment between immigrants and natives may be the result of the digital gap and not of the discrimination theorised. This is the reason why an index of IT experience, calculated as the sum of various IT tasks that the respondent can perform, is included. Another variable used in the literature to explain status differences is social capital. This variable has been operationalised with a battery of survey questions on participation in leisure, professional, religious, political, and caring (volunteering) activities. The total sum of activities is interpreted as a scale of social capital. These two variables are not included as base controls because they are not available for all 25 AES selected countries. They are included in an alternative model to check the robustness of the results.

3.3. Analysis

The hypotheses of immigrant disadvantage in the labour market, in terms of the occupational status gap and linguistic devaluation (hypotheses 1 and 2) and of the effect that openness towards immigrants have on them (hypotheses 3 and 4), were tested using several country fixed-effect regressions. This model is an ordinary-least-squares in which n−1 country indicator variables are controlled for. The use of fixed effects is especially interesting because they avoid the problem of heterogeneity bias at the country level. All higher-level variance, and with it any between effects, are controlled out using the higher-level entities themselves. Of course, this procedure exhausts all degrees of freedom and makes it impossible to estimate contextual-predictor effects. However, cross-level interactions can be estimated as they vary between and within countries (Allison, 2009).[4]

[4]An alternative to this procedure would be multilevel modelling, which is very popular among sociologists. However, recent studies have suggested that in cross-country analysis with fewer than 25 contextual observations with few contextual observations ($n < 25$), the application of this regression procedure results in unreliable estimates for country-level variables and cross-level interaction effects (Bryan and Jenkins 2016). Thus, in cross-country comparative studies in which the aim is to estimate cross-level interactions, fixed-effects are a desirable option and provide reliable estimations of the moderator variables by controlling for country heterogeneity.

The modelling carried out estimates disadvantage as the residual difference in occupational status (ISEI) between immigrants and natives after controlling for the specified individual variables (demographic, human capital, acculturation, etc.). The moderating effect of openness towards immigrants is determined by its interaction with immigrant status. This model can be formulated in the following way:

$$Y_{ij} = \beta' X_{ij} + \gamma I_{ij} + \eta(I_{ij}A_j) + \alpha_j + \varepsilon_{ij} \quad (1)$$

where i denotes individuals and j countries; Y refers to occupational status (ISEI); $\beta' X_{ij}$ refers to the vector of estimations of individual-level variables; ηI_{ij} refers to the immigrant effect and $\gamma I_{ij}A_j$ to its interaction with openness towards immigrants (attitude); α_j refers to the country fixed effect and ε_{ij} to the error term.

Similarly, the comparative advantage of linguistic skills is estimated as the differential effect of foreign languages on occupational status after controlling for the set of individual variables (that is, as a two-way interaction). The effect of interethnic tolerance is analysed as a three-way interaction with immigrant status and foreign language knowledge. It is an extension of Equation (1) to which the interactive effect of language skills has been added.

4. Results

Table 1 presents the results of the regression models that examine how immigrants are penalised and devalued when trying to access better jobs in Europe. Although all models include basic control variables and country fixed-effects, they only report the coefficients of the main variables of the study. Model 1 explores the status gap between natives and immigrants (main effect of immigrant status). The difference in the ISEI scale between them is −10.6 points. By way of comparison, the negative effect of being an immigrant would be of nearly the same magnitude as having post-secondary education or ISCED 3 (not shown in the table). Model 2 examines the 'immigrant' effect by making distinctions according to origin, comparing natives with European and non-European immigrants. Both European and non-European immigrants are at a significant disadvantage, but this disadvantage is greater for the latter (−8.8 vs. −12.1). Immigrants are also at a disadvantage in terms of their languages. Model 3 shows that the potential of linguistic capital for obtaining better jobs is reduced by 1.4 points for them. Model 4 analyses the comparative advantage of linguistic skills by distinguishing between European and

Table 1. Results of country fixed-effects models for occupational status (the International Socioeconomic Index computed in 2008).

	Model 1	Model 2	Model 3[a]	Model 4[a]
Intercept	32.850***	33.065***	32.974***	37.914***
	(1.137)	(1.136)	(1.138)	(1.225)
Immigrant	−10.55***		−9.410***	
	(0.585)		(0.762)	
Non-European Immigrant		−12.137***		−8.223***
		(0.613)		(0.695)
European Immigrant		−8.764***		−5.767***
		(0.621)		(0.748)
Immigrant × Foreign lang.			−1.349*	
			(0.598)	
English × Non-EU immigrant				1.312
				(0.671)
French × Non-EU immigrant				−4.323***
				(1.191)
German × Non-EU immigrant				3.913*
				(1.798)
Spanish × Non-EU immigrant				−3.180**
				(1.161)
Russian × Non-EU immigrant				−4.386***
				(0.778)
English × EU immigrant				3.359***
				(0.695)
French × EU immigrant				1.036
				(1.378)
German × EU immigrant				1.285
				(1.482)
Spanish × EU immigrant				5.407***
				(1.323)
Russian × EU immigrant				−9.083***
				(1.583)
R^2	0.401	0.401	0.401	0.409
Individuals	110,358	110,358	110, 358	110, 358
Countries	25	25	25	25

Notes: Control variables are: Sex, marital status, urbanicity, educational level, age and age squared, parents' educational level, years since migration, household size, official language fluency and country fixed-effects. Numbers in parentheses are standard errors. Full results of this model can be requested from authors.
[a]Main effect(s) of language(s) are included in model 3 and 4.
*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

non-European immigrants as well as the five most spoken languages in Europe (i.e. English, French, German, Spanish and Russian) (see European Commission, 2012) as natives and immigrants could have different language profiles. Non-European immigrants have a significant disadvantage in terms of fluency in French, Spanish and Russian (the exception is fluency in German, which is associated with an advantage over natives). In other words, the effect of one of these languages on occupational status is more important for natives than for non-European immigrants. In the case of European immigrants, the disadvantage is only significant for Russian speakers. On the other hand, Spanish and English speakers are regarded by the labour market as being of more value than natives.

Taking these results as a whole, it can be said that language is a proxy for origin. Languages provide less advantage for immigrants than for natives when they signal ethnic origins from developing countries.

Despite the evidence that immigrants in Europe are penalised and devalued, the variability in outcomes between countries is considerable. The native-immigrant occupational status gap is negative in all countries (Figure 2(A)), but while it is only small or nearly absent in some (e.g. Finland, Poland, Norway), in others it is much higher than average (e.g. Ireland, Italy, Greece). In terms of language devaluation (Figure 2(B)), in almost half of the countries, the relative advantage of language is positive (i.e. the immigrants' languages have a greater potential than the natives' languages). However, the other countries present a negative differential, which puts immigrants at a significant disadvantage. Figure 2 also reveals that there is a positive linear tendency across countries between the status gap, linguistic devaluation, and the degree of openness towards immigrants (R^2 around 0.2 in both cases).

Table 2 explores the observed correlations in greater depth. Models 5 and 6 examine the moderating effect of openness towards immigrants on labour market disadvantages by including two and three-way interactions. As can be seen, and in line with what previous plots show, positive contextual attitudes reduce the disadvantage of immigrants. In greater detail, an increase

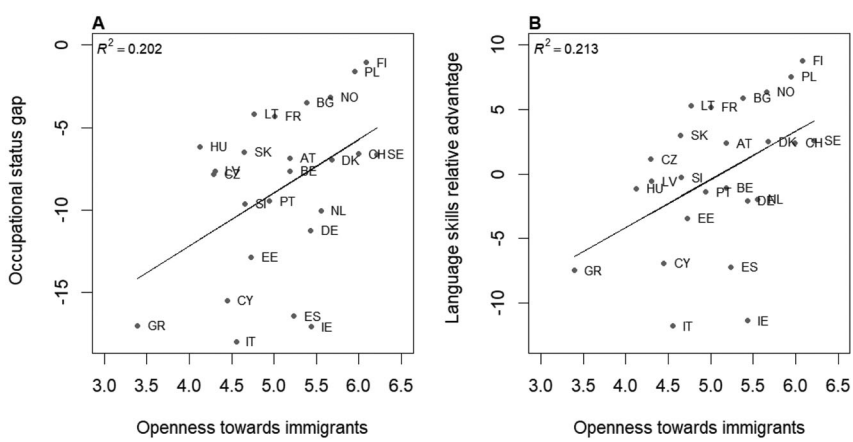

Figure 2. Occupational gap plotted against openness towards immigrants.

Note: The occupational status gap and the relative advantage of language skills in every country is determined using models 1 and 3, respectively, but including country fixed effect interaction with immigrant status and foreign-language fluency. AT: Austria; BE: Belgium; BG: Bulgaria; CH: Switzerland; CY: Cyprus; CZ: Czech Republic; DE: Germany; DK: Denmark; EE: Estonia; GR: Greece; ES: Spain; FI: Finland; FR: France; HU: Hungary; IE: Ireland; IT: Italy; LV: Latvia; NL: Netherlands; NO: Norway; PL: Poland; PT: Portugal; SE: Sweden; SI: Slovenia; SK: Slovakia.

of one standard deviation in openness towards immigrants reduces the occupational gap (it increases the equity between natives and immigrants) by 1.8 points on the ISEI scale. As far as linguistic devaluation is concerned, an increase of one standard deviation in openness towards immigrants improves the disadvantage in occupational status provided by a command of the immigrants' languages by 3.7 points.

Further analyses were undertaken to see whether the finding that there is a penalty and a disadvantage for immigrants is robust, and to provide additional insight into the effects of attitudinal context on labour market disadvantages. Regression results for immigrant subsamples and for models with an extended set of control variables are provided in the next columns of Table 2. Because, as models 5 and 6 highlight, context significantly influence the occupational status gap and the comparative advantage of language skills, next models have been derived from the last two. In these regressions, simple effects have to be interpreted as conditional to the reference groups and the attitudinal mean. Models 5.1, 5.2, 6.1 and 6.2 are the estimates for the female and male subsamples. From this separate analysis, it becomes clear that openness towards immigrants has a particular influence on women. The impact of the attitudinal context on the occupational gap for females is more than twice as high as for males (2.6 vs 1). And the impact on the relative advantage of linguistic skills is only significant in the case of women (men continue to be at a disadvantage in terms of linguistic capital, but openness towards immigrants does not reduce it). Models 5.3 and 6.3 analyse the same model but with two more control variables, IT experience and social capital, which are only available in a subset of countries (N = 13). Including these variables in the equations does not change the previous conclusions in any substantive way: openness towards immigrants still has a significant impact on both the occupational status gap and the relative advantage of language skills. Finally, models 5.4 and 6.4 distinguish between European and Non-European immigrants. The impact of attitudinal context is statistically significant in both cases. However, it is almost twice as high for non-European immigrants (1.9 vs 1). And a similar result can be observed regarding the impact of attitudes on language devaluation.

Estimates from models 5 and 6 are not exempt from the possibility of sampling bias. Occupational status is only observed among the employed population, which can lead to selectivity bias because access to employment is linked to unobserved factors that may also affect the position attained in the occupational hierarchy. Heckman's two-step procedure was applied to analyse and correct any possible bias (see Appendix 3).

Table 2. Cross-level interaction results (country fixed-effects regressions for occupational status [ISEI 2008]).

	Model 5	Model 5.1[a]	Model 5.2[b]	Model 5.3[c]	Model 5.4[d]	Model 6	Model 6.1[a]	Model 6.2[b]	Model 6.3[c]	Model 6.4[d]
Immigrant	−10.31***	−13.383***	−7.677***	−9.030***		−8.971***	−12.655***	−4.157***	−2.929*	
	(0.567)	(0.833)	(0.816)	(0.953)		(0.782)	(1.081)	(1.129)	(1.499)	
EU immigrant					−8.767***					−2.663*
					(0.626)					(1.282)
Non-EU immigrant					−12.07***					−11.139***
					(0.614)					(0.835)
Immigrant × Foreign lang.						−1.607**	−0.528	−3.777***	−5.798***	
						(0.607)	(0.841)	(0.875)	(1.118)	
EU immigrant × Foreign lang.										−6.250***
										(1.191)
Non-EU immigrant × Foreign lang.										−0.647
										(0.171)
Openness × Immigrant	1.792***	2.557***	1.046*	3.203***		−2.054	−2.851	−0.946	−0.590	
	(0.31)	(0.455)	(0.420)	(0.389)		(1.055)	(1.521)	(1.454)	(1.791)	
Openness × EU immigrant					1.031*					−2.113
					(0.493)					(1.322)
Openness × Non-EU immigrant					1.943***					−4.936*
					(0.381)					(1.782)
Openness × Immigrant × FL						3.673***	5.333***	1.736	3.649*	
						(1.096)	(1.582)	(1.510)	(1.832)	
Openness × EU immigrant × FL										2.992*
										(1.411)
Openness × Non-EU immigrant × FL										6.698***
										(1.823)
R^2	0.401	0.430	0.384	0.447		0.401	0.430	0.385	0.450	0.402
Individuals	110, 358	52,711	57,649	60,365	110, 358	110, 358	52,711	57,649	60,365	110, 358
Countries	25	25	25	13	25	25	25	25	13	25

Notes: Control variables are the same as in Table 1. Main effect of language is included in model 6 and its derivates (6.1–6.5). Numbers in parentheses are standard errors.
[a]Subsample of females.
[b]Subsample of males.
[c]Subsample of countries with extended set of controls (social capital and IT experience).
[d]Immigrant origin differential effects. Full results can be requested from authors.
*$p < 0.05$; *$p < 0.01$; ***$p < 0.001$.

Labour market participation was first modelled by probit regression. The regression includes the same variables as previous models, as well as an exclusion variable, household composition, which contain information about having dependent children. The *selection likelihood* is subsequently incorporated into the occupational status regressions as the inverse Mills ratio (IMR). Although the results show that labour market participation is indeed selective, the main finding concerning the effect of openness towards immigrants on the occupational status gap and the relative advantage of language skills remains remarkably stable

5. Summary and conclusion

The fact that immigrants are at a disadvantage in the labour market is a problem that the social sciences are attempting to clarify. The persistence of the problem, which is almost endemic, has been constantly discussed in the academic literature. Various explanations have been put forward to account for the discriminating behaviour, but they often contradict each other (tastes and attitudes versus rational choice). This article suggests that, independently of the source of discrimination, the social norm or attitudinal context (operationalised here as openness towards immigrants) moderates the impact discriminatory behaviour has on labour outcomes. This hypothesis has been analysed by focusing on the occupational status gap between natives and immigrants and the comparative advantage of their language skills in the European context. A regression analysis with a wide set of individual controls and country fixed-effects has enabled the magnitude of the immigrant disadvantage to be estimated, and the effect of attitudinal context to be tested.

In line with other studies that show that immigrants are at a disadvantage when it comes to employment or wages, this study reveals that immigrants also have lower occupational status than locals. More specifically, a mean difference of −10.6 points on the ISEI scale has been found, which increases to −12 points when the immigrants are non-European. A further disadvantage has been observed in relation to their language capital. The immigrants' languages bring, on the whole, 1.4 points less advantage in the occupational hierarchy than the languages of natives. This disadvantage is also observed for some of the five most spoken languages in Europe, such as French, Spanish or Russian. The results indicate that languages provide less advantage for immigrants than for natives when they signal ethnic origins from developing countries. These are net differentials between natives and immigrants, which were obtained after controlling for a wide range of variables,

including human capital, portability (acculturation), social and family background and sociodemographic features. These results confirm hypotheses 1 and 2 discussed above, which indicate the existence of discriminatory factors in the European labour market (since the main alternative explanations have been discounted). Of course, other explanations cannot be dismissed on the basis of a correlational analysis like the one performed. However, the attitudinal context, operationalised as openness towards immigrants, has been shown to be an important variable for understanding cross-country variation in these disadvantages. The moderating effect of the contextual attitudes is especially relevant in the case of females and non-European immigrants. The estimates are unbiased because all country-level characteristics are controlled for by the inclusion of country fixed-effects. Moreover, the results have proved to be robust to sample bias. This confirms hypotheses 3 and 4, and illustrates the importance of the social norm on the generation of inequality.

This study, then, has several implications for the literature on labour market inequalities between immigrants and natives. First, it provides a theoretical framework for how contextual attitudes influence the generation of inequality. Although several studies have pointed out that the attitudes and prejudices of the social context are a powerful barrier to the economic integration of immigrants, a theoretical framework has not been developed. What we say here is that aversions, biases and erroneous attributions of employers are moderated by the attitudinal context, which. It helps to legitimate or condemn ethnic discrimination and broaden or reduce cognitive bias and erroneous attributions. Second, this article provides an estimation of the immigrant's disadvantage in occupational status and of the impact contextual attitudes have on it. Although some previous studies have a similar aim, this study is the most extensive (25 European countries) and intensive (it includes more controls to estimate the net differences). Finally, this article is the only one which focuses on a specific skill beyond the classic variable of years of education. Our variable confirms the devaluation of immigrants' skills because language knowledge is not so dependent on the educational institution of the country of origin. In summary, the paper provides evidence of discrimination and, specifically, of the (linguistic) devaluation of immigrants. It also shows that contextual attitudes have a clear role in producing immigrants' disadvantages, which should be definitely added to the canon of inequality-producing factors in the social science literature.

Nonetheless, some limitations of the present study need to be mentioned. The impact of attitudes towards immigrants on labour market disadvantages has been analysed as an indirect effect when the actual hypothesis is that it moderates individual discriminatory behaviours. Although this article

presents evidence of the importance of attitudinal context through this hypothesised indirect effect, the immediate impact exerted by the attitudinal context on each of the three causes of discrimination (aversions, biases and erroneous attributions) should be analysed. The relative advantage of the worker's linguistic competences has been analysed because of the importance they have in the global and service economy. However, analysing other competences in the light of the openness towards immigrants would provide a clearer picture of the problem of devaluation. These issues remain open for future research.

Although ethnic or racial discrimination is prohibited in numerous jurisdictions – for example, in the European Union (e.g. Racial Equality Directive [2004-43]) – the problem persists. Prohibition is fundamental to solving the problem, but prevailing attitudes in the social environment have a significant impact on reducing or enhancing the discrimination against and devaluation of immigrants. A society that tolerates discriminatory behaviours instead of reporting them, that accepts ethnic prejudice instead of rejecting it, and that legitimises the barriers facing immigrants instead of criticising them will have great difficulty in doing away with all the discriminatory behaviours in the labour market. In this regard, the promotion of policies encouraging inter-ethnic tolerance and openness toward ethnic diversity is another essential step towards eradicating the problem.

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Appendices

Appendix 1. Variables of the study

Dependent variable (labour market outcome):
Occupational status – ISEI 2008 score of the occupation in which the respondent is employed (ISCO two level)

Independent variables:
Age – Age of the respondent in years
Age^2 – Age squared

Educational level – set of dummy variables from the ISCED classification: 1: No formal education is the reference category; 2: ISCED 1 (Primary); 3: ISCED 2 (Lower secondary); 4: ISCED 3 (Upper secondary); 5: ISCED 4 (Post-secondary, non-tertiary); 6: ISCED 5 and 6 (Post-secondary to Tertiary)

Foreign language fluency – dichotomous variable equal to one if the respondent is fluent in at least one non-official language
Household size – total number of household members
Immigrant – dichotomous variable equal to one if the respondent is foreign born
Informatics experience – Total number of tasks that the respondent is able to do from a list of nine (copying or moving a file or folder, using copy and paste tools, using basic arithmetic formulas in a spreadsheet, compressing files, connecting and installing new devices, programming, transferring files to other devices, creating electronic presentations, installing software)

Male – dichotomous variable equal to one if the respondent is male
Married – dichotomous variable equal to one if the respondent is married

Official language fluency – dichotomous variable equal to one if the respondent is fluent in at least one of the official languages in the country of the survey
Openness towards immigrants (z score) – average score for three 10-point scales measuring attitudes towards immigrants (European Social Survey, 2008/9 [round 4])
Parents' educational level: Average level – for the mother and father of the respondent (or equivalents) – computed from an ordinal scale: 1 = Secondary or less; 2 = Upper secondary; 3 = Tertiary

Social capital – Total number of social activities in which the respondent is involved from a list of six (political parties or trade unions, professional associations, recreational groups or organisations, charitable organisations, informal volunteering, religious organisations)

Urbanicity – dichotomous variable equal to one if the individual lives in a densely populated area

Years since migration – year of the interview minus year of migration

Appendix 2. Descriptive statistics for natives and immigrants

	Natives		Immigrants	
	Mean	SD	Mean	SD
ISEI 2008	56.792	25.925	47.459	26.617
Male	0.551	0.497	0.554	0.497
Urbanicity	0.417	0.493	0.576	0.494
Married	0.609	0.488	0.654	0.476
Household size	2.996	1.324	3.138	1.526
Educ. Level: ISCED 1	0.034	0.182	0.078	0.268
Educ. Level: ISCED 2	0.137	0.344	0.206	0.405
Educ. Level: ISCED 3	0.457	0.498	0.389	0.488
Educ. Level: ISCED 4	0.043	0.203	0.035	0.185
Educ. Level: ISCED 5–6	0.326	0.469	0.271	0.444
Age	41.887	10.777	40.858	10.310
$Age^2/100$	18.707	9.065	17.760	9.626
Parents education	1.520	0.380	1.455	0.657
Years since migration	–	–	9.171	3.207
Official language fluency	0.998	0.050	0.927	0.259
Foreign language fluency	0.520	0.500	0.878	0.328
IT experience[a]	4.686	9.016	4.024	9.500
Social Participation[a]	0.705	1.076	0.590	0.016
N	100772	9586		

[a]Computed from the subsample of countries for which this information is available (n = 56,405 for natives and n = 3,960 for immigrants).

Appendix 3. Heckman two-step estimates: ISEI score conditioned on the probability of being employed

	Model 5.5	Model 6.5
Intercept	32.562***	37.620***
	(1.415)	(1.413)
Immigrant	−9.207***	−7.663***
	(0.682)	(0.870)
Immigrant × Foreign language		−1.722**
		(0.651)
Openness × immigrant	1.943***	−2.640***
	(0.247)	(0.786)
Openness × immigrant × FL		4.952***
		(0.812)
Rho	−0.273	−0.268

Notes: Sample size is equal to 175,523 (65,165 censored and 110,358 observed). The models include the same variables as in previous models plus the IMR. *$p < 0.05$; *$p < 0.01$; ***$p < 0.001$.