DE GRUYTER MOUTON
DOI 10.1515/ling-2013-0036 — Linguistics 2013; 51(5): 1019–1064

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Macro and micro perspectives on the distribution of English in Dutch: A quantitative usage-based analysis of job ads

Abstract: The world-wide spread of English is one of the most visible symptoms of globalization. In weak contact settings such as Western Europe, where contact with English is usually indirect, remote and asymmetrical, the English language started diffusing at a hitherto unknown rate in the second half of the twentieth century. Crucially, this diffusion happens at two different levels. First, on the macro-level, English is more and more used as a language of (international) communication. Second, on the micro-level, English is intruding in local languages, most notably by means of lexical borrowing. So far, the macro- and micro-level of linguistic influence are hardly ever linked or simultaneously studied. Nevertheless, as will be shown in this paper, it is interesting to investigate whether a connection between both levels exists. Specifically, we present a quantitative multivariate comparison of the features underlying the choice for English at both levels of analyses, using a diachronic corpus of over 16 000 job ads published in two Dutch job ad magazines. On the macro-level, we verify what communicative and situational parameters (e.g., branch of industry of the recruiter) determine the choice for and distribution of ads written entirely in English. On the micro-level, we verify the impact of the same set of parameters on the choice for inserting English elements in ads where Dutch is the matrix language. Using two multiple logistic regression models, we can verify to which extent the mechanisms underlying language choice at both levels are different. Results show that a large difference exists in the basic proportion of English at both levels, but that quite some similarities in the distribution of English are found when zooming in on the specific parameters underlying language choice. As such, this paper advocates to perceive of the different manifestations of the spread of English as part of a continuum, rather than as isolated phenomena. Hence, we hope to provide a first step in bridging the theoretical and methodological gap between the ELF paradigm and anglicism research.

Keywords: ELF; English loanwords; contact linguistics; variational linguistics; cognitive sociolinguistics

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1 Introduction

The second half of the twentieth century saw an exponential rise of the use of English around the world, with academic attention for the phenomenon growing accordingly (Kachru 1983; Graddol 1997; Crystal 2003; Wolf and Polzenhagen 2009). Focusing on the spread of English in European countries, where English typically does not have official status, one can distinguish between two main ways in which the language is diffusing. On the macro-level, English is more and more used as a language of (international) communication. On the micro-level, English is intruding in local languages, most notably by means of lexical borrowing. Comparing the factors that play a role on the micro-structural and the macro-structural level is hardly ever done, but it is precisely what we will attempt to do in the present paper. On the basis of job ads in Dutch, we will show that largely identical factors determine English influence on the macro-level and the micro-level. In the present section, we position our study against the background of linguistic research on the global spread of English. Section 2 situates it in the more specific context of research on the use of English in advertising. Section 3 introduces the data and the new visual representation technique we use to analyze the data. Section 4 presents the results from these multifactorial analyses, and Section 5 formulates our conclusions.

Corpus-based studies on the influence of English in Europe typically adhere to one of the two levels of analysis. Firstly, on the macro-level, the growing use of English as *lingua franca* for people from different language backgrounds has been paralleled by a surge in studies on this new phenomenon. Over the last two decades, efforts have been grouped in the new ELF paradigm (Seidlhofer 2001; House 2003; Jenkins 2009; Mauranen and Ranta 2009). Corpus-based ELF research firstly mainly focuses on describing the features typical of ELF use, dealing with both grammatical issues (like the use of 3rd person singular zero marking, Dewey 2009), and pragmatic features (like the negotiation of meaning and the use of face-saving strategies, Firth 1996). The analyses are predominantly qualitative, and based on data from ESP settings (i.e., English for Specific Purposes), like business or education (e.g., St. John 1996; Nickerson 2005; Louhiala-

Salminen and Charles 2006; Rogerson-Revell 2007). A second crucial point within the new paradigm is the extent to which ELF can be regarded as a variety in its own right, separate from native speaker norms (e.g., House 1999; Seidlhofer 2009). In this debate, the results from the empirical studies are used as arguments in favor of a *sui generis* conception of ELF. Finally, these results also serve as the basis for discussing if, and if so, what variety of ELF should be taught in language classrooms (e.g., Kuo 2006). Alternatively, the use of English as a means for international communication has also been discussed under the name International English (IE) (Strevens 1980 or Greenbaum 1991 as discussed in Firth 2009) or, specific to the rise of English in Europe, as Euro-English (Mollin 2007). The ELF paradigm stresses the fact that ELF and IE cannot be considered as synonyms, because IE creates the misconception that "there is one clearly distinguishable, codified and unitary variety called International English" (Jenkins 2007: 4). Moreover, where the ELF paradigm stresses the *sui generis* status of the *lingua franca* use of English, IE emphasizes the importance of adhering to native speaker norms (Quirk 1981). Euro-English is avoided because of its too restricted focus (cf. Kirkpatrick 2007 on lingua franca English in Asia).

Secondly, since the early twentieth century, a number of studies have focused on the spread of English at the micro-level, i.e., on the intrusion of English elements in several European languages, with the richest tradition of anglicism research based in Germany. The prime focus of micro-level research lies on drafting inventories of lexical borrowing: (mostly written) corpora are combed for English loanwords, which are then counted and classified, primarily according to their degree of morphological adaptation to the receptor language (Krauss 1958; Carstensen 1965; Rando 1973; Posthumus 1986; Yang 1990; Fink 1997; Nettmann-Multanowska 2003) (but see Zenner et al. 2012 for a usage-based perspective). Also, the results of these studies serve as a basis for on the one hand the development of loanword terminology, both for descriptive (e.g., Filipović 1973) and prescriptive (e.g., Dunger 1899; Étiemble 1964) purposes, and on the other hand for the creation of dictionaries of anglicisms (e.g., Carstensen and Busse 1994–1996; Görlach 2001). More recently, the focus is gradually shifted from loanwords to longer stretches of English (both codeswitching and borrowed phraseology), with more attention for the pragmatic functions of micro-level English (e.g., Leppänen and Nikula 2007; Onysko and Winter-Froemel 2011; Androutsopoulos 2012). However, this line of research is still under development and so far, analyses are generally qualitative and based on limited empirical evidence, which makes it hard to come to generalizable conclusions (but see Van de Velde and Zenner 2010, Zenner et al. in press).

Despite the longstanding tradition of anglicism research and the plethora of studies currently being published within the ELF paradigm, the macro- and

micro-level of linguistic influence are rarely ever linked. It is nevertheless interesting to investigate whether a connection between the levels exists. It is the aim of this paper to trace similarities and differences in the communicative and situational parameters underlying the macro- and micro-level spread of English. For example, we verify to what extent the diachronic evolution in the use of English at both levels is comparable. Also, we will introduce methodological innovations to both current corpus-based ELF and anglicism research. To this end, we follow the framework of Cognitive Sociolinguistics (Kristiansen and Dirven 2008; Geeraerts, Kristiansen and Peirsman 2010), advocating a usage-based, multifactorial and quantitative approach.

Specifically, this paper presents a quantitative corpus-based analysis of the features underlying the choice for English or Dutch, both at macro- and micro-level, in a corpus of over 16 000 measuring points from job ads taken from two Dutch job ad magazines. We focus on advertising because, as will be discussed below, both macro- and micro-level English influence have regularly been noted in this domain. Our main research questions can be formulated as follows:

(1) *Concerning macro-level use of English*: what communicative and situational parameters determine the choice for and distribution of English-only ads?
(2) *Concerning micro-level use of English*: what communicative and situational parameters determine the choice for inserting English elements in ads where Dutch is the matrix language (i.e., ads mainly written in Dutch and following Dutch grammar rules; Myers-Scotton 2002)?
(3) *Comparing the levels*: how different are the mechanisms underlying language choice at both levels and how can we measure this in a reliable way?

Below, we first discuss why the domain of advertising forms an interesting starting point to tackle our research question.

2 English in advertising

Though a corpus of (job) advertisements is not the most typical type of data for linguistic analysis, it serves as a good starting point to tackle the research questions set out in the previous paragraph. Drawing on existing studies on the use of English in product and job advertising, we put forward the following reasons for using advertising data. Most works cited in this overview study product advertising. A special note is made for those studies dealing with job advertising data.

First and foremost, some previous studies on the use of English as a foreign linguistic resource in advertising state that English influence manifests itself at the two levels of analysis described above (e.g., Cheshire and Moser 1994; Piller

2001; Hilgendorf 2007 and see Watts 2002; Korzilius et al. 2006 for job ads): either ads are written entirely in English (i.e., macro-level use, see Fig. 1),[1] or English elements are inserted to enrich the native lexicon (i.e., micro-level use, see Fig. 2). Though researchers are generally aware of the difference, they tend not to aspire at a thorough comparison of the distribution of English at the two levels (but see Gerritsen et al. 2007 for product ads). From a more general perspective, advertising is often noted to be one of the most English-prone linguistic domains (e.g., Bonhomme 2003), with English being the prime source of foreign influence in advertising language (e.g., Bajkó 1999). As such, we believe that advertising data will provide sufficient relevant material to work with, and hence forms an ideal starting point for this study.

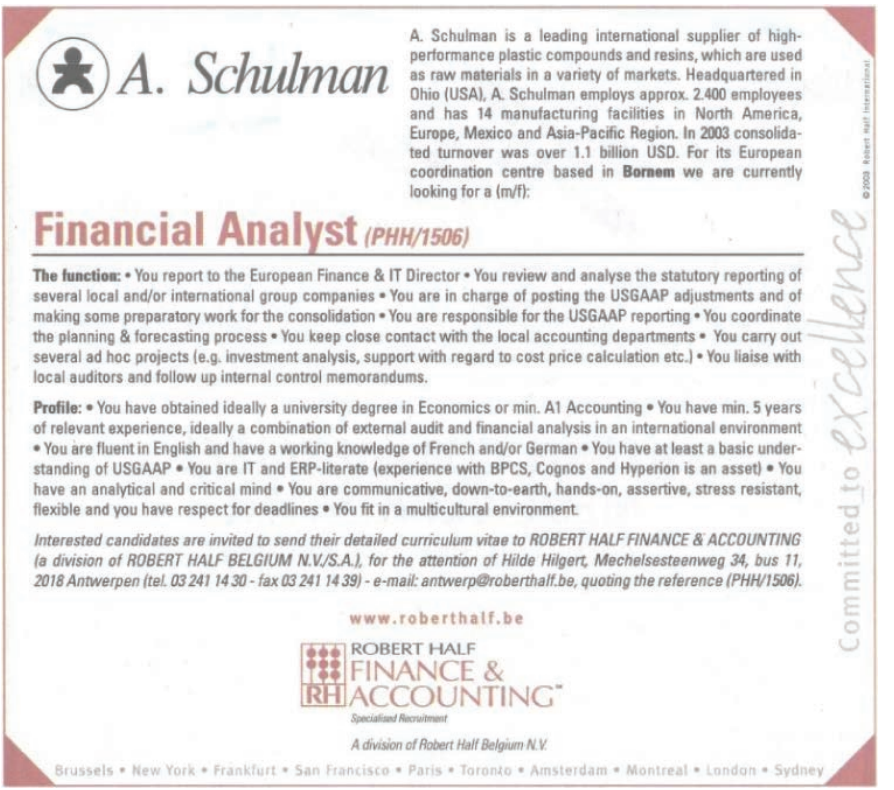
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Fig. 1: English ad

1 All examples are drawn from http://www.advertentiebank.be, a large resource of job ads published in Belgium since 2004.

Fig. 2: Intrusion of English elements in a Dutch ad

Moreover, the results and conclusions of previous studies serve as a solid basis for making informed decisions on which parameters we should define in our study. Specifically, we draw on the four main topics dealt with in existing corpus-based research on the use of English in advertising. We summarize these main points here, which will be referred back to in the relevant parts of this paper. Firstly, studies often provide an indication of the degree of proliferation of English in job and product ads, aiming to answer the question *how much English* is really used. As most approaches take a qualitative perspective on the data, quantitative analyses are either limited to basic descriptive statistics on the proportion of ads containing English elements (e.g., Ustinova and Bhatia 2005; Martin 2007), or are absent altogether (e.g., Bonhomme 2003). More detailed quantitative analyses are scarce (but see Gerritsen et al. 2007, and cf. Korzilius et al. 2006 for work on job advertising). Despite the limited scope of current quantifications, we would ideally like to compare them to our results. However, the lack of homogeneity in the definition of micro-level linguistic influence (i.e., "containing English elements") forms a severe impediment to making this comparison in a reliable way. The impact of these diverging definitions will be discussed in more detail further on in this paper.

The second main topic studied is *why English* is used in advertising, with the symbolic value of English as the most frequently mentioned reason to use the language. In contrast to other foreign languages, English is said to be primarily attached to modernity and globalization, and less to specific national stereotypes (e.g., the French are romantic, Italians love coffee, Germans are punctual etc.) The main idea is that by using English in an ad, the beliefs and sentiments evoked by the English language will rub off on the advertised product or job (Cheshire and Moser 1994 – partly based on Smith 1976; Piller 2001; Schaller-Schwaner

2003; Martin 2007). Put simply, English makes products and jobs come across as more modern, more global and (hence) more desirable (e.g., Bonhomme 2003; and see de Koning 1989 and Seitz 2008 for job advertising). As these claims are mainly made in corpus-based studies, they should be treated with caution: they cannot prove to what extent this symbolic effect is what ad writers intend when they use English and how ad readers perceive English in ads. Over the years, in-depth interviews with ad writers assessing the effect they anticipate when using English (e.g., Martin 2006; Baumgardner 2006; and cf. Van Meurs 2010 for job ads) and experimental studies and surveys which measure the actual (and seemingly rather limited) effect using English has on ad readers' opinions on the advertised products and jobs (Gerritsen 1996; and see Van Meurs et al. 2007 for job ads) have nuanced these assertions. Another, more practical reason is occasionally given for the use of English at the macro-level: it saves multinationals money, as they can connect to all (or most) consumers around the globe with one and the same ad (Gerritsen et al. 2007). And finally, note that English can be used because it serves as the *lingua franca* in the recruiting firm or in the field in which the firm is active.[2]

The third, but less widely dealt with topic is finding out *in what position English* is mostly used, i.e., in what part of the ad. To this end, ads are considered to be "complex, multilayered units that are composed of different building blocks" (Androutsopoulos 2012). The specific building blocks identified differ for product and job ads, and are often even defined differently in each individual study. Usually, however, the subdivisions adhere in some way or other to the main components of press advertising identified by Leech (1966: 59): headline, illustrations, body copy, signature line and standing details (e.g., Ustinova and Bhatia 2005; and see Watts 2002 for job ads). Typically, researchers find that English is most commonly used in the most focal positions of an ad, i.e., the headlines or slogans for print product ads and the occupational titles for job ads (e.g., Cheshire and Moser 1994). The explanation given for the use of English in these focal positions is that it is used as a discourse strategy, which helps attract (even more) attention to these sections, which already stand out by means of font, typeface, size etc. (Bonhomme 2003; Martin 2007).

The fourth and least developed topic within research on the use of English in advertising is focused on tracking down variation in the use of English based on the questions *for whom, by whom and for what type of product or job* an ad is written. So far, the first steps have been taken in assessing to what extent the type or

2 We would like to thank an anonymous reviewer for pointing out this practical reason for using English in job advertising.

amount of English used in ads varies depending on the target audience, with Bonhomme (2003) looking at regional variation, Martin (2007) discussing gender and age and Korzilius et al. (2006) (who focus on job ads) inquiring into educational level. Piller (2001: 180) aims at finding a more general social profile of the intended reader of ads using English, who according to her is "a business executive who thrives in an international environment, is future-oriented, successful, sophisticated, and wants to enjoy the good things in life." Korzilius et al. (2006) also inquire into the effect of the national or international orientation and the general line of activity of a company, but focus on job ads instead of product ads. They show that international commercial companies are most inclined to use English. These results are similar to what Cheshire and Moser (1994) and Gerritsen et al. (2007) find for the impact of product category on the use of English in product ads: the more local the service or product being advertised, the less likely English will be used, whereas ads for consumer goods distributed by multinational corporations contain English more frequently.

A final reason for working with advertising data is that we not only wish to rely on insights from these previous studies, we also want to add to them. Specifically focusing on the methodological plane, research on English in product and job ads has so far mainly taken a qualitative corpus-based approach. Hence, performing a detailed quantitative analysis of the distribution of English at the macro- and micro-level of linguistic influence allows us to verify to what extent hypotheses built on existing results can be corroborated when included in a multifactorial quantitative statistical model. Also, relying on a substantially bigger and more lectally varied database than used up to this point enables us to take a wider diachronic perspective and to contribute to the currently underdeveloped variationist line of research on the distribution of English in advertising. We mainly wish to assess the impact of the sociolinguistic distribution of English and Dutch ads in more detail than has hitherto been the case.

Given the reasons stated above, it should be clear that advertising data are suited for our analyses. The choice for job ads instead of product ads, then, is mainly inspired by practical considerations: job ads are often bundled in a single magazine and collecting data is more convenient and manageable than having to assemble product ads, which are typically more dispersed within and across different media.

3 Method

The goal of this study is to identify and explain variation in the distribution of micro- and macro-level English influence: in what communicative situations do

we on the one hand find ads written entirely in English and, on the other hand, ads where English is an additional linguistic resource, and how comparable are these situations for both levels of analysis?

Methodologically speaking, our approach is situated within the framework of Cognitive Sociolinguistics (Geeraerts 2005; Kristiansen and Geeraerts 2007; Kristiansen and Dirven 2008; Geeraerts 2010; Geeraerts et al. 2010). Firstly, analyses are based on *sound empirical proof*, either in the form of a sizeable corpus or of experimental techniques (e.g., Impe et al. 2009). Secondly, a *multifactorial approach* is taken, in which the combined impact of a diverse set of predictors on the phenomenon under scrutiny is assessed. Thirdly, *lectal variation* is awarded special attention, as social and regional patterns are believed to add significantly to understanding the variation one wishes to account for. Finally, *inferential statistics* are used to measure the impact of the predictors.

We distinguish four crucial steps in our methodology. The first step is the creation of a large database of job ads and the coding of language choice at macro- and micro-level. To allow for a comparison between these levels, a binary distinction is used for both ("English" vs. "no English"). The second step entails identifying and defining determinants which may influence language choice. Next, the impact of these determinants is assessed at both macro- and micro-level in order to track down the contexts most susceptible to English. For the final step, we compare the impact of the determinants at both levels of analysis. Below, we discuss these steps in more detail.

3.1 Creating the database and coding for language

3.1.1 *Intermediair* and *Vacature*

For our study we collected 16 622 job ads from two job ad magazines, each representing one of the two national varieties of Dutch. For Netherlandic Dutch, we collected all 6272 ads from 39 randomly chosen July issues of the weekly job ad magazine *Intermediair,* one for each year in the period of 1970 to 2008. For Belgian Dutch (spoken in Flanders, the northern part of Belgium), we collected 10 350 ads from 35 issues of the weekly job ad magazine *Vacature*. As this magazine only came into existence in 1989, the time-span for which we collected data was inevitably more limited, i.e., from 1989 up to 2008. To compensate for the limited diachronic depth of the Belgian Dutch data, we complemented the collection of ads from the selected July issues with all ads from one randomly chosen April issue for each year from 1989 up to 2008. The repercussions of this asymmetry in our dataset will be discussed in more detail below. The data was collected

manually by consulting the archives of the Central Library of the University of Leuven, Belgium in May, June and July 2008. Concerning what counts as an ad, we follow Korzilius et al. (2006: 151), centering our definition on the occupational title. This means that, if an ad contains more than one occupational title (i.e., if more than one position is offered in the same ad; cf. Figure 3), each title and all

Fig. 3: Ad containing several occupational titles

information concerning that title were inserted in the database as a separate observation.

Before discussing language coding at macro- and micro-level, we would first like to indicate the two main advantages of our database vis-à-vis the datasets typically used in studies on the use of English in advertising. Firstly, by working with archived material, we are able to add a substantial diachronic dimension to the current synchronic studies. Secondly, our corpus of over 16 000 measuring points is notably bigger than the databases hitherto used in studies on the use of English in advertising, which hardly ever exceed the boundary of 1500 ads (Bajkó 1999; Martin 2002; Schaller-Schwaner 2003; Ustinova and Bhatia 2005; Baumgardner 2006; Van Meurs 2010). This sizable corpus allows us to introduce inferential statistics to verify which of the patterns we find can be translated into general conclusions.

3.1.2 Macro-level: body

The main aim of this paper is to compare the distribution of macro- and micro-level influence of English in our collection of Dutch job ads. As was mentioned, to ensure maximal comparability, language choice at both levels is coded using a binary distinction, which means that for both levels we start from the question "is English used, yes or no?"

For the macro-level, this entails that we contrast ads where English is the matrix language (Fig. 1) with ads where Dutch is the matrix language (Fig. 2), defining the notion of matrix language as it is used in the Matrix Language Frame Model of language mixing (MLF, Myers-Scotton 2002). The key notion of MLF is asymmetry: one of the languages used in the text (the matrix language) is clearly and consistently more dominant than the other (the embedded language), in that it provides the morphosyntactic frame used for structuring the bilingual clause (cf. the notion of insertional codeswitching in Auer 1998).

In practice, determining whether English or Dutch is the base language of the ad is rather straightforward. Ads with English as matrix language are typically written entirely in English and those ads mixing Dutch with English elements (loanwords, fixed phrases and codeswitches) still clearly have Dutch as the grammatical basis for constructing the text. The only exceptions are a minority of French and German ads found in *Vacature*. As these were too infrequent to consider for the analyses, French and German ads were not included in the database. For ease of reference, ads with Dutch as the matrix language are henceforward simply referred to as Dutch ads. English matrix language ads are referred to as English ads.

3.1.3 Micro-level: title

As noted above, Dutch ads are frequently mixed with English elements. This phenomenon forms the focus of the micro-level analysis, where we restrict our attention to Dutch matrix language ads. Deciding on the precise unit of analysis is however not as straightforward as for the macro-level analyses: should we measure the use of English in the entire text, should certain elements be excluded (e.g., standing details) or conversely be awarded special attention (e.g., the occupational title), or should separate measurements be taken for each of the different building blocks an ad consists of?

Intuitively, the latter option would seem to form the most reliable approach. In this study, however, we focus our attention on the use of English in the occupational title. Below, we sum up the main reasons why we restrict the micro-level analysis to language choice in the title. Next, we provide information on how we proceeded with the binary coding.

The main alternative to restricting the focus to the occupational title is measuring the use of English in each of the different building blocks of the ad, yet several obstacles make this option less attractive. A purely practical concern relates to the diachronic span of our data: as we collected all data manually, gathering precise language coding for 16 000 occupational titles is of course far more manageable than collecting detailed information on all building blocks for the same number of ads. Secondly, as was mentioned above, no uniform definition of these building blocks currently exists, especially not for job ads. Moreover, even if such a uniform partitioning was available, one would still have to deal with the fact that most building blocks are optional. Even the name and contact information of the recruiting company are often not provided[3]. The occupational title, however, being the most focal and important part of the ad (see De Witte 1989 for evidence from eye tracking studies), appears to be present by default. Also, identifying the occupational title is straightforward, as its boundaries are habitually demarcated by means of obvious typographical cues such as bold font and increased type size. Next, when working with all building blocks, it is not clear what the ideal method for measuring the use of English in these building blocks is, let alone whether one measure is equally applicable to all of the defined units. For instance, using the proportion of English words for the total amount of words

3 I.e., in cases where the ad is drafted by external recruitment agencies, who are not keen on spreading out free publicity for firms and hence more typically opt for empty phrases like "for our client in the X industry, we are looking for Y". As noted by an anonymous reviewer, an additional (and perhaps more likely) reason is that the recruiting company might simply not want its identity to be revealed.

is appropriate for the body text of the ad, but less so for the occupational title. As the occupational title usually does not contain many words, a binary approach is more fitting, making the title the ideal unit of analysis for pursuing a comparison with macro-level use of English.

Using binary coding for the micro-level entails that we indicate whether or not the occupational title *contains* English (Fig. 2 vs. second title of Fig. 3). Like Martin 2002, we consider those elements English which are recognizable as such by naive native speakers of Dutch[4]. As experimental studies and survey data on the topic are missing, the yardstick we use to verify which items follow this criterion is based on both etymological information provided in Dutch dictionaries (mainly den Boon and Geeraerts [2008] and de Vries and te Winkel [1882–1998]), and, as anglicisms "are frequently marked by their unusual interplay of phonological and orthographical form" (Onysko 2007: 33), on the grapheme-phoneme mapping of a word. The following algorithm is used: young loanwords (e.g., *software*) are by default considered to be English, and older loanwords (borrowed before 1945) are only considered to be loanwords if the pronunciation of the word is not what naive speakers of Dutch would anticipate based on the spelling of the word. As a naive Dutch pronunciation of the written form *film* (borrowed 1905–1925) would sound very close to the English pronunciation, it is not considered to be English for our study, despite *film* being originally borrowed from English. *Manager*, on the other hand (borrowed in some meanings around 1850), is considered to be English, as a naive Dutch pronunciation (i.e., following the spelling and pronunciation rules of Dutch) would sound more like /maˈnɑːɣər/. As such, we take a far more liberal approach than Korzilius et al. 2006 and Gerritsen et al. 2007, who exclude all English words which are listed in Dutch dictionaries (like *software*).

Following this coding scheme, all cases where English is used in the title of a Dutch ad receive the code "eng", i.e., both English-only titles (e.g., *IT consultant for finance sector*) and mixed titles (e.g., *gedreven engineers met ervaring* 'passionate experienced engineers'). These titles are contrasted with Dutch-only titles (e.g., *adviseur bedrijfsorganisatie* 'general management advisor'), which receive the code "noEng". We will come back to this classification in the conclusion to our paper.

A final important comment has to do with "double" occupational titles. Sometimes, an occupational title contains two noun phrases, each highlighting a different aspect of the same position, e.g., "assistant manager middelenvoorzien-

4 As an anonymous reviewer notes, given the global spread of English, such naive speakers of Dutch might not exist. However, the main point here is to design an algorithm that allows us to objectively define which items can be considered English.

ing/ technisch tekenaar" (the bottom title of Fig. 3). Although these are considered to be part of one and the same job ad, they are split up as two occupational titles for the micro-level analyses.

3.1.4 Trimming the database

One remaining issue that needs to be dealt with before discussing the predictors we identified for our study is the asymmetry in the data collection: as was mentioned above, the diachronic span for the Netherlandic Dutch dataset (*Intermediair*) is wider than for the Belgian Dutch dataset (*Vacature*), whereas the Belgian Dutch dataset contains more synchronic material. We conducted a preliminary set of statistical analyses to find out whether the asymmetries are harmful when comparing the use of English in the two national varieties. Chi-square tests show that the amount of English used in *Intermediair* in 1970–1989 is significantly lower than the amount in 1989–2008, for both body- and title-level (p for chi-square < 0.00001). Hence, the *Intermediair* data for 1970–1989 are discarded from the analyses to ensure that the comparison between the regional varieties is not obscured by diachronic patterns. As no statistical differences were found when comparing the use of English in the July issues with the April issues of *Vacature*, all *Vacature* data was selected for the final analyses. A summary of the resulting database is presented in Table 1.

The macro-level dataset contains 13 508 observations, i.e., all ads excluding the 1970–1989 data. For the title-level analyses, a subset of this database is taken which contains all observations from Dutch ads (i.e., excluding English matrix language ads), with double titles (e.g., the bottom line of Figure 3) split up. This leaves us with 13 094 observations, which represent 8542 different types (i.e., different titles). Only 28 titles occur more than 20 times and only 1751 titles occur more than once; approximately 80% of our dataset consists of hapaxes. These figures provide a nice indication of the creativity of ad writers, who apparently do not simply draw from a set inventory of possible job titles, but try to come up with a (new) appropriate title for each new vacancy.

Table 1: Data collection

	Vacature	***Intermediair***	***Intermediair* after trimming**
Macro: number of ads	10350	6272	3158
Number of Dutch ads	9515	5895	2900
Micro: number of titles (doubles split up)	10064	6025	3030

3.2 Identifying and defining possible determinants of language choice

As a next crucial step in our study, we identify and define those features which can underlie variation in the distribution of English elements at macro- and micro-level. In determining potential predictors of linguistic behavior, we could take into account social, cultural, communicative as well as internal linguistic features. For this study, we focus on the former, excluding internal features. Such intra-linguistic features (e.g., semantic class, part of speech or difficulty of the lexical item) are more important for micro-level language choice than for macro-level language choice, where the focus is not so much on lexical items as on units of discourse. Given that we are mainly interested in comparing the two levels of linguistic influence, we will inquire into the effect of parameters which apply to both levels of analyses. Simply discarding internal features, which could exert a significant influence on title-level language choice, would of course be harmful for the reliability of our results. Hence, we checked the impact of several internal features (e.g., the number of words in the occupational title) in a series of separate title-level analyses. For the models presented here, these features proved to be of minimal relevance. Hence, they were left out of the analyses. Below, we discuss the six situational and cultural parameters that were included in this study.

3.2.1 Diachronic evolution

The first parameter is the diachronic period in which the ad was written. In order to verify the extent to which the use of English is increasing, we grouped the data in four periods: [1989–1995[, [1995–2000[; [2000–2005[and [2005–2008[.[5] The cut-offs were chosen to ensure an even distribution of our ads over the four periods, not because the given years (1995, 2000, 2005) are of any specific importance in the historical evolution of the diffusion of English. We expect to find a rise in the use of English at both levels of analysis (see e.g., Crystal 2003 for a detailed discussion of the historical background of the rise of English).

5 For the notation of the different time periods, we follow mathematical conventions. If the brackets are facing inwards, this means that the given year is included in the time period (e.g., period [2005–2008] includes ads from 2005 until, and including, 2008). If the brackets are facing outwards, this means that the given year is excluded from the given time period (e.g., period [1989–1995] includes ads *up to* 1995, but not ads written *in* 1995).

Based on Mauranen (2009: 2), we anticipate a steeper cline for the macro-level rise than for the micro-level rise, especially for the later periods: "the use of English as a lingua franca has become the fastest-growing and at the same time the least recognized function of English in the world".

3.2.2 Regional variation

Regional variation is the second parameter we would like to present, focusing on possible differences between the use of English in Belgian Dutch (*Vacature*) and Netherlandic Dutch (*Intermediair*). Despite growing attention for pluricentric variation in all branches of linguistic analyses (see e.g., Clyne 1992; Barron and Schneider 2009), variation in the use of foreign language material in different national varieties of the same language has largely been ignored. This also holds true for Dutch, apart from a handful of studies where the issue is included as part of a more comprehensive research endeavor (Geeraerts et al. 1999 and Gerritsen et al. 2007). To date, we are aware of only two papers (van de Velde and van Hout 2002; Geeraerts and Grondelaers 2000) that deal exclusively with a comparison of foreign language material in Belgian Dutch and Netherlandic Dutch. Yet, the cultural-linguistic history of Flanders (the Dutch speaking part of Belgium) and the Netherlands provides us with good reasons to study the degree of variation in the use of English in the two varieties.

The Netherlands is generally known for its open attitude towards foreign languages in general, and towards English in particular. According to Booij (2001), this positive attitude towards Anglo-Saxon culture was mainly instigated by the Second World War: "English is still felt as the language of the liberators, even by people born after the Second World War" (Booij 2001: 348). For Flanders, the situation is more complex. Belgian Dutch is characterized by a longstanding ambivalent relationship with French: the language of the Flemish aristocracy and – as a result – of public life in general was French throughout the largest part of the 18th and 19th century. On the one hand, this slowed down the standardization process of Dutch, as standardization typically results from a desire for more homogeneity in public life and cultural emancipation, and on the other hand, it caused a massive influx of French loanwords in Belgian Dutch. When in the 1960s the standardization process was eventually speeded up as the result of the growing political emancipation of Flanders, language policy was directed towards assimilation with the Netherlandic Dutch standard, which had been developing since the 16th century and did not undergo any notable impact of French. As a result, "the struggle for recognition of Dutch as the official language in Belgium often materialized as a competition with the French standard" (Geeraerts and

Grondelaers 2000: 53, and see Gerritsen 1999: 47), leading to an ardent rejection of French loanwords.

The impact of this negative attitude towards French loanwords can be translated into two conflicting hypotheses concerning the use of English in Belgian Dutch. Firstly, the rejection of French loanwords could form the basis of a more general Belgian Dutch purist tendency, which also affects the use of English. In this case, the use of English will be more wide-spread in the Netherlandic Dutch dataset than in the Belgian Dutch dataset, specifically for the micro-level, where English elements intrude and "contaminate" Dutch. For the macro-level, this hypothesis can however also be supported, given the different position English holds in language tuition in both regions. In the Netherlands, English is the first foreign language taught in education, tuition starting in primary school. In Flanders, English is taught as the second foreign language (French being the first), tuition starting in the second year of secondary school. This finding is specifically important, as 83 percent of Europeans indicate primary and secondary school as their prime source for foreign language learning (Eurobarometer 243). Further support for a difference at the macro-level is found in the Eurobarometer data for 2005 (Eurobarometer 243) (cf. also Gerritsen et al. 2007). The results from the survey show that where 87 percent of Netherlandic Dutch respondents claim to be able to have a conversation in English, this level drops to 59 percent for Belgian respondents. However, these Eurobarometer data should not be overinterpreted: as the Belgian respondents are sampled across the three linguistic communities of Belgium (French-speaking in the South, Dutch-speaking in the North, and a German-speaking minority in the East), they are not very representative. Finally, Berns (1988) considers the Netherlands (together with Denmark and Germany) as evolving into a region where English functions as a second language more than as foreign language. She makes no such claims concerning the role English plays in Flanders.

As a second hypothesis, we could conjecture that the use of English in both regions is highly comparable, as English loanwords did not have the impeding effect on standardization French loanwords had. An extra argument for this hypothesis is the similar, and very firm position English holds in the media in both regions, which is best illustrated by the fact that nearly all English material which is broadcast on Flemish and Dutch spoken channels (amounting to at least 40–60% of the programs) is subtitled instead of dubbed (Booij 2001).

3.2.3 Branch of industry

The next parameter, branch of industry, is specifically applicable to advertising data. We include this factor to verify to what extent the use of English depends on the sector in which the recruiting organization is active. In contrast to Korzilius et al. 2006, who categorize the different companies according to the Standard Company Classification of the Dutch Bureau of Statistics (CBS 1993), we decided to base our classification on sources more particular to advertising. Specifically, we rely on the branches of industry defined on the website of *Vacature* (www.vacature.be) and on www.advertentiebank.be, a large online database of job ads published in Belgium since 2004. *Intermediair* was not consulted, as it does not provide a classification of the recruiting companies. Combining the two sources and taking the distribution of our data into account, we arrived at the final categorization presented in Table 2, which also fits nicely with the *Intermediair* data. The table also includes the abbreviations used further on in this article in the graphical representation of the results. In order to classify the companies in one of the eleven branches, we drew on information on the activities of the company included in the body text of the ad, where possible complemented with information from the company website. In a small set of cases (1224 ads), no such information was provided. These received the code "unknown".

The order in which the branches of industry are presented in Table 2 aligns with our hypothesis concerning the use of English in the different sectors: we expect that more modern and more internationally oriented companies (like consultancy firms and financial institutions) will use more English than locally based

Table 2: Data collection: Branch of industry

Branch of industry	Abbreviation
Media & IT	IT
Service, HR & Consultancy	srv.HR
Pharmaceutical Industry	phrm
Finance	fin
Retail & Distribution	sales.distr
Energy & Safety	erg.saf
Education & Research	edu.rch
Industry	indr
Food & Agriculture	food
Healthcare & Hospitals	health
Government, Culture & Social Profit	govern.cult
Unknown activities	unknown

sectors like government agencies, hospitals, schools and social-profit organizations (compare Cheshire and Moser 1994). Also, we expect more English ads and titles in industries which were established in English speaking countries, like the IT sector (see Seitz 2008). An important comment is that, though certain sectors are in general more international than others, the degree of internationalization of a company can vary greatly from one company to the other, even within the same branch of industry. However, given the diachronic nature of our data, it was not possible to track down information on the mononational or multinational orientation of each individual company. As this type of information is often not included in the ad itself, recourse has to be taken to information on the company website (see Korzilius et al. 2006: 155). The older companies in our dataset however usually do not have websites. Also, a substantial part of these companies no longer exist, which excludes the possibility of consulting trade registers. Though these often contain entries on the closed companies, a set (and high) contribution has to be paid per company for which one wishes to consult the archives. Hence, we restrict our attention to the effect of branch of industry on the use of English.

3.2.4 Job content

Our next predictor is used to inquire into the effect of the job content of the job advertised for. Again relying on the classifications of www.advertentiebank.be, in this case complemented with the table of contents in the print versions of *Vacature* and *Intermediair*, we grouped the job titles into 8 occupational classes. Our hypothesis, which is reflected in the ordering in Table 3, is based on Piller (2001) and Gerritsen et al. (2007: 310), who claim that English is typically used to advertise for products (in our case for jobs) that can be associated with "modernity,

Table 3: Data collection: Job content

Job content	Abbreviation
Information Technology	it
Human Resource Management	hr
Sales & Marketing	sales
Finance	finance
Administration & Communication	adm.com
Technical Jobs	techn
Public Jobs	public
Other	other

e.g., internationalism, future orientation, success and elitism, sophistication, fun, youth".

Two comments need to be made concerning this predictor. Firstly, as becomes clear when comparing the labels in Table 2 and Table 3, job content is related to branch of industry: certain types of companies advertise for certain types of jobs. This association is made explicit in Fig. 4, which shows the relative proportion of the different occupational classes we identified for each of the 12 branches of industry. Specifically, IT companies seem to be primarily interested in recruiting new IT consultants and financial institutions primarily look for new financial staff. Although this association is noteworthy, it is not strong enough to endanger the reliability of statistical models including both parameters. Also, we believe that studying both parameters simultaneously is useful, as we expect that their importance will differ depending on the level of analysis. As macro-level language choice is more linked to corporate structure and the general communication policy of a firm, we expect that the effect of branch of industry will be primarily noticeable in the macro-analyses. Conversely, the choice for inserting English elements in the occupational title of Dutch ads is less linked to corporate communication strategies than to the specific job advertised for, which leads us to anticipate a bigger effect of job content on micro-level than on macro-level language choice.

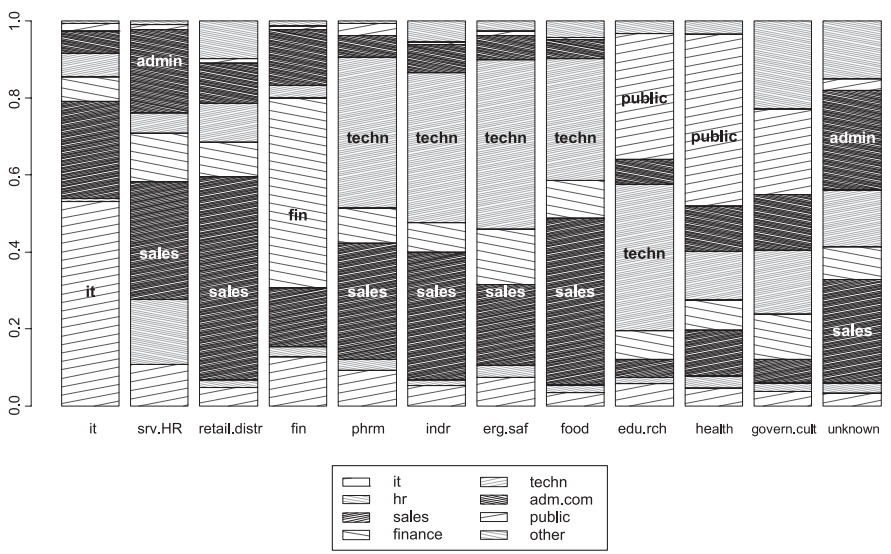

Fig. 4: Association of job content and branch of industry

Secondly, at this point we would ideally also like to introduce a more fine-grained, concept-based classification of the different jobs occurring in the database. Taking such an onomasiological perspective entails defining all jobs advertised for, and all different job titles used to name each of these jobs (see Speelman et al. 2003). This would allow us to distinguish between jobs which can only be expressed by a Dutch or English title and jobs which can be expressed by both Dutch and English titles, i.e., where true variation in language choice exists (compare Onysko and Winter-Froemel 2011). Including such a concept-based approach in analyses of advertising language is however far from straightforward. The precise job content corresponding to an occupational title is not always clearly described in the body text of the ad, the information included in the title itself is often (deliberately) kept vague (see Kovtun 1996) and the job titles are often made to sound more appealing than the actual job content (Ballegeer 2008). As such, it is often very difficult to assess to what extent two job titles are truly interchangeable. Even for shorter titles, like *accountant* and *boekhouder*, there is no clear-cut strategy in determining the semantic relationship between the titles, which can vary from ad to ad. Also, the creativity of ad writers in drafting ads results in a wealth of different titles (see the great proportion of hapaxes in our dataset presented above): it seems that virtually every type of job can be expressed by more than one title. Finally, the creativity in trying to make a job sound more attractive ensures that even for those jobs for which we initially believed that only one title is in use, an alternative can easily be found. For the job title *calculator* we for instance found the alternative *technisch bediende voor het berekenen van prijsoffertes* ("technical administrator for the calculation of tenders"). Concluding, as it does not seem possible to provide a reliable identification of the different concepts and lexicalizations used in the occupational titles, we restrict our attention to the classification presented in Table 3. We will however come back to this issue in the conclusion to this paper.

3.2.5 HR agency

Often companies consult external recruitment agencies when a position needs to be filled. If such external agencies help draft the ad, they are usually clearly mentioned in the ad (e.g., the Robert Half logo in Fig. 1). We believe it might be interesting to compare those ads where such external agencies are involved with ads drafted independently by the future employer. The results from a survey conducted in 2006 by Insites Consulting, commissioned by Jobat (another Belgian Dutch job ad magazine), hint at a clear difference in the effect of using English in occupational titles anticipated by HR professionals and the actual attitude of the

professionally active Belgian population. HR officers believe that using English makes a job sound more attractive, whereas no significant difference was found in the attitude of the professionally active population towards titles with and without English elements (see also Van Meurs et al. 2006 for the lack of effect on respondents). Based on this information, we are inclined to expect more English in ads drafted by external recruitment agencies. No clear difference is anticipated between micro- and macro-level analyses.

3.2.5 Size

The final predictor we identify is the size of the ad, measured relative to the page on which it was printed. We distinguish between small ads (printed on less than half the page or half the page) and large ads (occupying more than half the page). As our diachronic dataset prohibits us from gathering detailed information on the recruiting company (see above), we use the size of the ad as a rough indication of the size of the company. As larger ads are more expensive, we expect them to be placed by bigger firms. As we generally expect bigger firms to be more inclined to use English for internal communication, we anticipate finding more English in the large ads than in the small ads, specifically for the macro-level analyses. Of course, this predictor is a very rudimentary approximation of the pattern we wish to explore. Hence, caution is needed in interpreting the results for this predictor.

3.3 Determining and comparing the impact of the determinants at both levels

The last steps we need to take in order to compare the distribution of micro- and macro-level use of English is firstly assessing which of the six predictors we defined help explain why and where English is chosen when the combined effect of these predictors is taken into consideration and secondly tracking down differences in these effects on both levels of analysis.

One of the most reliable ways of determining the simultaneous impact of several variables on a binary response variable (in this case, English or not) is logistic regression modeling (Faraway 2006; Baayen 2008). For our analyses, we build two such regression models, one for assessing the impact of our predictors on micro-level language choice, one for their impact on macro-level language choice. This allows us compare the strength and patterns of the effects at the two levels (compare Tagliamonte and Jankowski 2011 and Meyerhoff 2009, who compare Goldvarb models). The two models were built in R (R Development Core Team

2011). For both levels, all six predictors add significantly to the model[6]. We also checked for significant interactions, but as they on the one hand contributed little to the explanatory power of the model and on the other hand complicated the comparison of the effects at macro- and micro-level, we decided not to include any of these interactions in the final models. The model diagnostics were carefully analyzed, all possible associations between predictors were verified and effects were checked for robustness. Both models passed all diagnostic tests.

Once the models are fitted, the actual comparison of the use of English at macro- and micro-level can be conducted at three different levels. Firstly, on a purely descriptive level, we can compare the overall amount of English used: what is the proportion of ads written entirely in English, and what is the proportion of titles from Dutch ads containing English elements? Secondly, we can compare the relative impact of each of the six predictors in the regression models: how well do the predictors capture language choice, and are any of the predictors more important for one of the models? As explained above, we for instance expect a greater impact of branch of industry than job content for macro-level language choice. Finally, zooming in on each of the six predictors, we verify whether any differences can be found in their individual effects. As explained above, we for instance expect a steeper rise of the use of English at macro-level than at micro-level.

For this final type of comparison, we rely on the confidence intervals around the regression model estimates, which are specifically insightful when using a graphical representation of the effects. In this paper, we discuss the results relying on such graphs. The actual regression models can be found in the appendix. An example of the graphical comparison is provided in Fig. 5, which shows the impact of a fictitious predictor Y, with levels *a*, *b*, *c* and *d*, on micro- and macro-level language choice.

In the plot, the horizontal grey dashed line represents the behavior of the reference value (in this case, *a*). This is one of the levels of the predictors to which all other levels (*b*, *c* and *d*) are compared. For all predictors, we explicitly mention which of the levels has been chosen as the reference value. The behavior of the levels is compared to this grey line by means of vertical bars, which represent the 95% confidence intervals around the estimate (i.e., the coefficient for the level in the regression model). The regression estimate is indicated in the plots by a dash in the middle of the bars. The bars in a full blue line represent the behavior of a given level in the macro-model, the bars in a dotted green line represent the

6 But note that with a p-value of .11, the effect of the predictor size is only borderline significant in the macro-model.

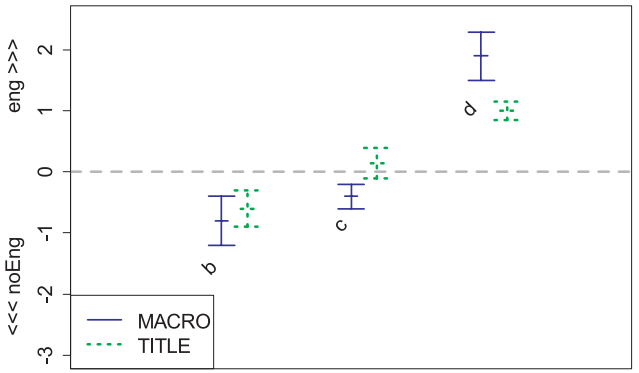

Fig. 5: Effect of fictional predictor Y (ref = "a")

behavior in the micro-model. The position of the bars with respect to the horizontal grey line (the reference value) can be interpreted as follows. Firstly, if the bar is located under the grey line, this means that significantly *less* English is used than in the reference value (see e.g., dotted green bar *b*). Secondly, if the bar intersects the grey line, no significant difference with the reference value was found (see dotted green bar *c*). Thirdly, if the bar is located higher than the grey line, this means that significantly *more* English is used than in the reference value (see e.g., dotted green bar *d*). Crucially, the position of the macro-model bar (full blue line) and the micro-model bar (dotted green line) can be compared. If the bars overlap (such as in *b*), the effect of the level is highly comparable in both models. If there is no overlap (such as in *c* and *d*), it means that the effect is notably different in the two models. The bigger the distance between the bars, the more noteworthy the difference. For *c*, we for instance see no significant difference with the reference value for the micro-model, but a clear impact on the macro-model (the use of English being significantly lower in *c* than in the reference value *a*). For *d*, significantly more English is used at both the micro- and the macro-model, but the effect is markedly bigger for the macro-model.

4 Results and discussion

4.1 Descriptive statistics: The overall use of English

As a first step in comparing the use of English as a language for communication and the intrusion of English elements in Dutch, we focus on descriptive statistics

Table 4: Overall use of English at both levels

	Macro	Micro
Number of ads	13508	13094
% of English ads	8.1	36.4

showing the proportion of ads written entirely in English (macro) and the proportion of occupational titles from Dutch matrix-language ads containing English elements (micro), as shown in Table 4.

A clear difference between both levels is noticeable: English is found approximately four times as often at the micro-level than at the macro-level. One possible reason for this result is that the micro-level use of English is an older phenomenon than the macro-level use of English, and has hence had more time to disseminate. The starting point of noteworthy lexical influence of English on Western European languages is typically located in the early nineteenth century, with a true explosion of anglicisms starting in 1945 (see Dunger 1899; De Vooys 1951; Berns 1988; Stalhammar 2004 and van der Sijs 2005). For the spread of English as a language for (international) communication, Louhiala-Salminen and Charles 2006 locate the establishment of English as European *lingua franca* in the 1960s (see also Brumfit 1995 in Jenkins 2009).

In order to corroborate our claim that this difference in historical background of macro- and micro-use of English underlies the pattern found in Table 4, we need to have a closer look at the diachronic evolution of the use of English at both levels of analysis. To this end, we turn to the regression models. Below, we present the goodness of fit and explanatory power of the model. Then, we compare the overall impact of the predictors at macro- and micro-level, and finally, we zoom in on the specific behavior of the predictors. First, however, one final comment on the descriptive results needs to be made.

Ideally, we would like to be able to compare our descriptive results with those of other studies on the use of English in job and product advertising. Remember, however, that it is hard to make such a comparison in a reliable way, as no uniform definition of what counts as micro-level English exists (see Gerritsen et al. 2007 for similar comments). Restricting the comparison to the use of English at the macro-level is also hazardous, as current studies predominantly focus on synchronic material and, due to the limited size of their datasets, mostly do not dispose of a reliable amount of English-only ads.

4.2 Strength of the model and general impact of the determinants

As mentioned, a second means of comparing the macro- and macro-level use of English relies on the regression models. More specifically, we can verify the relative importance of the predictors for the two models. First, we consider their combined effect (how well do the variables predict language choice?). Then, we discuss the relative contribution of each of the six predictors (for example, does branch of industry have a bigger impact on macro-level language choice than on micro-level language choice?).

Concerning the overall explanatory power, we see a clear difference between the models. The pseudo R^2 (a value between 0 and 1 indicating how much of the attested variation is explained by the model) is twice as high at the title-level (0.352) as at the macro-level (0.157). An alternative and more reliable measure (also between 0 and 1), C, shows the extent to which the model has predictive power. C's over 0.8 signify predictability. We again see a better result for the micro-model (0.81) than for the macro-model (0.764). One reason why the macro-model might be underperforming is the existence of hidden variables, i.e., predictors that influence language choice but were not included in our study. Though other parameters can indeed be thought of that can influence macro-level language choice, these can however not be defined objectively in our database. One such example is the impact of the national or international orientation of a company, which has been discussed above. Other candidates (see Korzilius et al. 2006) are the salary for the job advertised for or the level of the position in the company structure (e.g., junior, senior or executive level). Again, these details are usually not provided in the ads. Concluding, macro-level language choice seems less tied to the predictors we defined than micro-level language choice. Nevertheless, all predictors significantly contribute to the explanation of the variation in the distribution of English at both levels.

A next question then is whether any of these predictors have a stronger effect on one of both models. To this end, we order the predictors according to their importance for the explanation of language choice in the two levels, presented in Fig. 6 and Fig. 7. The plots are based on non-cumulative analyses of variance (ANOVAs) of the regression models, which calculate the share of the total amount of explained variation accounted for by each individual predictor.

Three noteworthy patterns are revealed. First, for both models, one predictor stands out as the most important parameter. For macro-level language choice, this is branch of industry. For micro-level language choice, it is diachronic evolution. Second, branch of industry is a far more important predictor than job content for the macro-model, but for the micro-model, their impact is highly com-

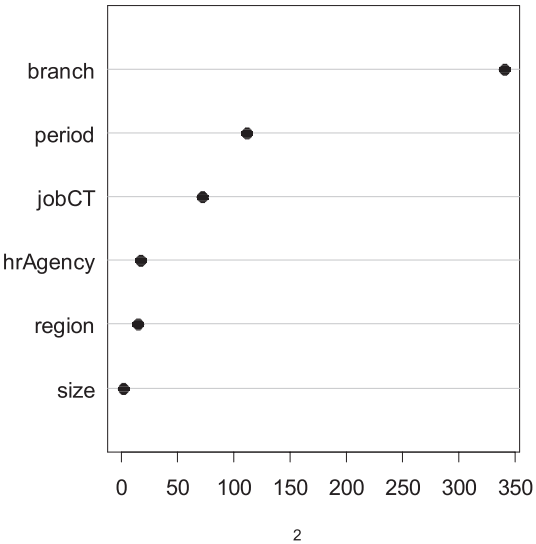

Fig. 6: Impact predictors macro-model (ANOVA)

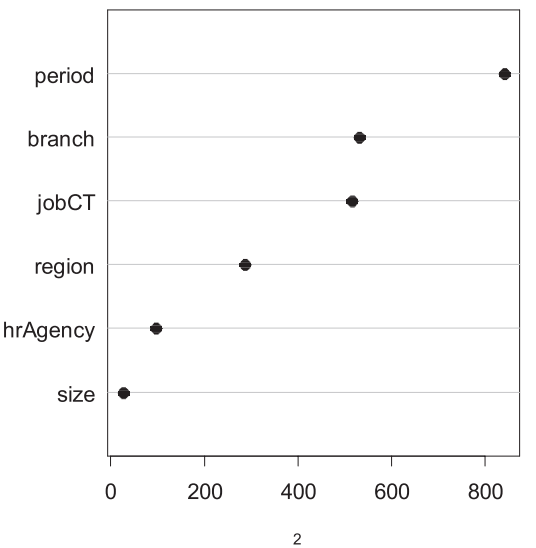

Fig. 7: Impact predictors micro-model (ANOVA)

parable. Third, the relative contribution of regional variation is higher in the micro-model than in the macro-model. The strong macro-level impact of branch of industry aligns with our expectations: as was discussed above, the decision on

what language is used for communication is typically made at the corporate level, and should as such be considered part of the construction of a firm's corporate identity (Melewar 2003). The relatively smaller impact of diachronic period on macro- than on micro-level is however not as was primarily expected: following Mauranen (2009), we anticipate a steeper cline for macro-level use of English. The ANOVA however seems to indicate the opposite. For a precise understanding of the differences in the diachronic evolution in the use of English, we need to have a closer look at the actual effect of the predictor. The same holds true for the different relative impact of regional variation: we can only arrive at insightful conclusions by scrutinizing the specific effects of the parameter. Below, we zoom in on the behavior of each of our predictors.

4.3 Specific behavior of the determinants

4.3.1 Diachronic evolution

The evolution of the use of English across the four defined diachronic periods is presented in two plots. Fig. 8 compares the effects on the micro- and macro-level use based on the regression models. The oldest period, 1989–1995, serves as the reference value. Fig. 9 contains a descriptive line chart showing the proportion of English at both levels. The plots show that as expected, the use of English increases over time at both levels. Also, we see that English is spreading quicker at the micro-level, which does not align with Mauranen's claim (2009) that macro-level use of English is currently the fastest-growing function of English.

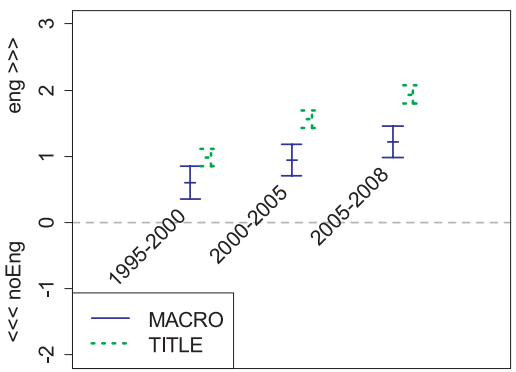

Fig. 8: Effect of year (ref = "1989–1995")

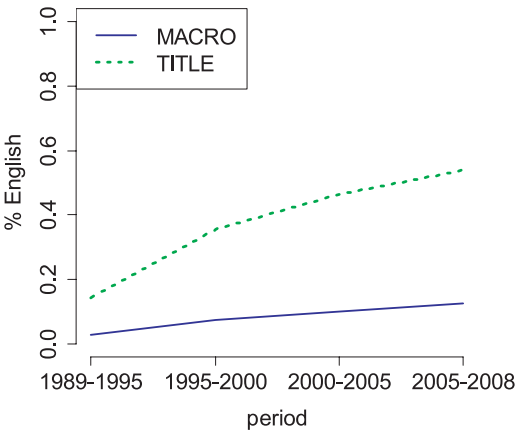

Fig. 9: Effect of year (descriptive)

Finally, in all periods, English is used more frequently at the micro-level than at the macro-level.

As was mentioned above, the higher use of English at the micro-level might be linked to its more entrenched historical position. The pattern could however also be a result of the steeper cline of the micro-level evolution (shown in Fig. 9), which indicates a quicker growth of micro-level English influence. The question then becomes why micro-level influence is growing faster. Micro- and macro-use of English represent language mixing and language shift respectively, two inherently different outcomes of language contact (see e.g., Thomason 2001; Gómez Rendón 2008). As language shift (even if limited to certain domains) requires bilingualism, it can be considered to be a more drastic linguistic development than language mixing, which is possible even in monolingual societies (i.e., in the form of lexical borrowing; see Matras 2009: 112). Furthermore, the English-Dutch situation forms an atypical contact setting: contact is primarily passive and unidirectional, as English spreads predominantly through mass media. Also, English still largely retains its status as a foreign language in Belgium and the Netherlands, as macro-use of English is mainly restricted to communication between people from different linguistic backgrounds. The pressure on the community to become bilingual is hence lower than in traditional contact settings (e.g., migration, colonization), which slows down the macro-level spread of English. On the other hand, the abundant presence of English in the media enables an influx of micro-level English. This situation is reflected in the difference of the clines in Fig. 9.

4.3.2 Region

Fig. 10 presents the regional effects found in our corpus, with the *Vacature* dataset (Belgian Dutch) serving as the reference value. We see a reverse effect for the two levels of analysis: more ads are written entirely in English in Flanders than in the Netherlands, but less English is used in the occupational titles of Belgian Dutch ads than in Netherlandic Dutch ads. Furthermore, the plot shows that the difference between the regions is more outspoken on the micro-level than on the macro-level (see also Fig. 6 and Fig. 7).

Our interpretation of the micro-level difference is based on the cultural-linguistic background of both regions we presented above: the results indicate that the Flemish purist reaction towards French loanwords also affects the use of English, which is less widespread than in the Netherlands. For an interpretation of the macro-pattern, we could rely on the claims made by Schaller-Schwaner (2003), Bonhomme (2003) and Gerritsen et al. (2007) on the benefits of using English in advertising for multilingual regions: writing an ad in English allows companies to address the French-speaking and Dutch-speaking population with only one ad, which is of course economically more interesting (as it saves money). In the Netherlands, English-only ads do not serve this purpose, which might explain why they are used less frequently here. We should however also take into account that that *Vacature* mainly addresses the Dutch-speaking part of Belgium (its Southern Belgian counterpart is *Références*). Nonetheless, writing one ad which is published in two job ad magazines is still a cheaper option than drafting different ads specific to the linguistic community.

Considering that language planning and standardization efforts in Flanders peaked several decades before 1989–2008 (i.e., the period represented by our corpus), we need to verify the validity of the link we made between the purist

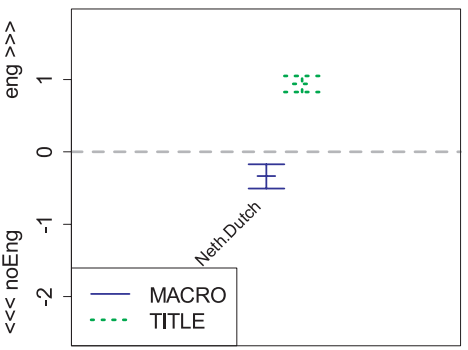

Fig. 10: Effect of region (ref = "Belgian Dutch")

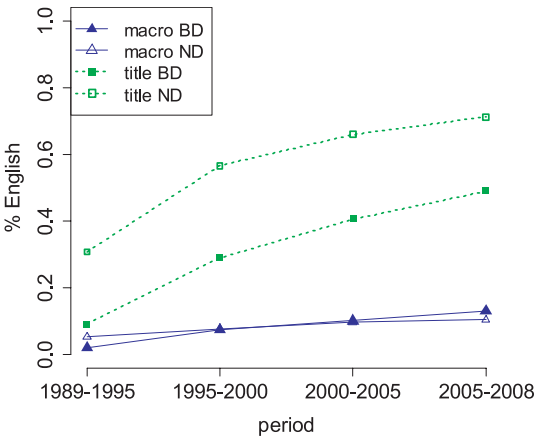

Fig. 11: Effect of region per period (descriptive)

tradition in Flanders and its lower use of micro-level English. Specifically, we need to have a closer look at the diachronic development of the variation between the regions. This is shown in Fig. 11, which presents the same type of line chart as presented in Fig. 9, now split up for region. In the graphs, we use the abbreviations BD and ND for Belgian Dutch and Netherlandic Dutch respectively. For the micro-level, we find no interaction between region and diachronic evolution: the two lines run parallel, indicating that micro-level English grows at an equal rate in both regions. As a result, our claims concerning the Belgian Dutch purism towards English need to be nuanced. It appears that the xenophobic reactions concerning the lexicon in the 1960s and 1970s are responsible for the lower intercept of the Belgian Dutch cline, but not for the steepness of the cline. As such, the purist tradition of Flanders should be considered to be no more than a historical legacy.

For the macro-level, we do find an interaction between diachronic period and region, although the differences between the regions are not very strong. Specifically, we find a reversal of the original situation. As originally more macro-level English was used in the Netherlands than in Flanders, our previous hypothesis concerning regional variation in macro-level use of English needs to be nuanced. A tentative interpretation of the results in Fig. 11 again links back to the purist history of Flanders: in the earlier periods of the dataset, macro-level use of English is placed on a par with micro-level use and is hence avoided. As prescriptivism diminished in intensity, English macro-level influence was embraced. Given the aforementioned benefits of using macro-level English in multilingual

societies, the spread was more intense and happened quicker than in the Netherlands, causing the reversal seen in Fig. 11.

Before moving on to the results of our next predictor, two comments need to be made. Firstly, our results differ from those presented in Gerritsen et al. (2007), who compare the use of English in six national varieties, including Belgian Dutch and Netherlandic Dutch. They find no significant difference between the use of English in both regions on the macro-level and significantly more micro-level English in Belgian Dutch than in Netherlandic Dutch. These results can however not simply be compared to ours, as Gerritsen et al. (2007) use a different (and far more restrictive) definition of what counts as English, analyze product ads and not job ads, calculate the amount of English used in the entire ad, and only work with synchronic data.

Secondly, a point of caution is that a difference exists in the educational level of the readership of *Intermediair* and *Vacature*, with *Intermediair* targeting at a higher educated audience, which is also reflected in a notable association between job content and region. This could make the comparison of the use of English in the two regions unreliable: the results in Fig. 10 might not be a strict regional effect, but could then also be attributed to a difference in the educational level of the audience, and hence of the type of jobs advertised for. We performed extra analyses to verify the impact of this difference in target audience: we re-ran the analyses on a subset of the data which only contained those job ads for which the head noun of the occupational title (e.g., *manager, accountant, nurse* . . .) occurs in both datasets. As no striking differences with the main analyses were found, we here present the results based on the full dataset.

4.3.3 Branch of industry

The effect of our next parameter, branch of industry, is shown in Fig. 12, where IT-companies function as the reference value. We choose IT as reference point because we expect that most English will be used by this sector, given that it combines three features which we believe trigger companies to use English: firstly, the IT industry was (and is) mainly established in English-speaking countries. Secondly, it is a young and modern sector. Thirdly, the products developed by IT companies are indicative of and contributing to globalization and internationalization (see e.g., Androutsopoulos [2013] on computer-mediated discourse). We hence expect all other branches of industry to be located under the 0-line (i.e., the behavior of IT) of Fig. 12. The order in which the branches are listed in the plot follows the ranking of the branches in the macro-model (from more to less use of English). It is clear, however, that the micro-level ranking does not always follow

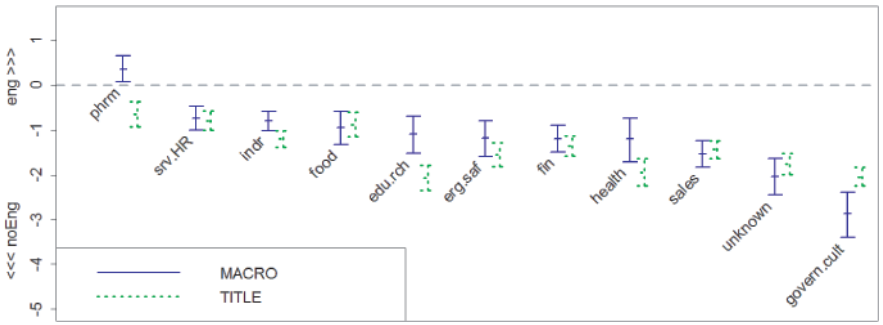

Fig. 12: Effect of branch of industry (ref = "Media & IT")

this macro-level hierarchy (see e.g., *edu.rch*). To ensure maximal interpretability of the results, we also provide Fig. 13, which exclusively shows the results of the title level, following title level ranking.

The plots reveal the following four patterns. First, the special position awarded to IT companies seems legitimate: The other branches use significantly less English than IT companies. Second, the majority of the remaining branches behave very similarly, with great overlap in the confidence intervals. Third, for the macro-level, two exceptions to these general patterns can be found. On the one hand, the chance of finding English is significantly higher if the ad is sent out by a pharmaceutical company than by an IT firm. On the other hand, government and social-profit agencies and cultural organizations (*govern.cult*) stand out by using significantly less English than all other branches. For the remaining branches, no noteworthy differences are found. Fourthly, Fig. 13 shows a smooth

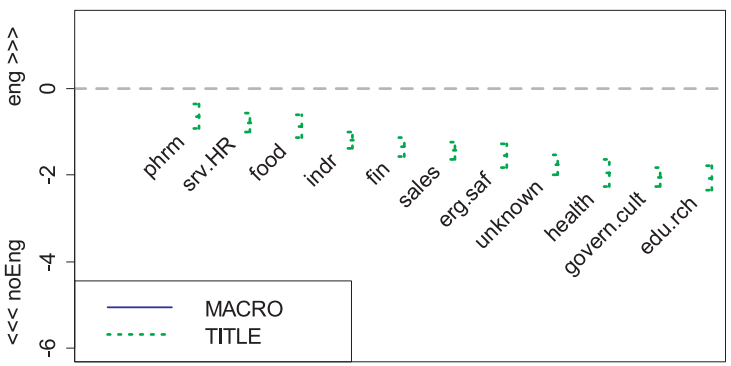

Fig. 13: Effect of branch of industry (title)

cline for the micro-level use of English, with only minor differences between consecutive branches. Despite the differences being small, the micro-level cline does support our general hypothesis: the more modern and international branches, like IT companies, pharmaceutical concerns (*phrm*) and consultancy firms (*serv.HR*) use more English than the more locally based, traditional branches, like schools (*edu.rch*), hospitals (*health*) and public services (*govern.cult*).

Overall, the results for branch of industry mainly follow our expectations, though they are less convincing and more restricted to specific branches than we anticipated. As concerns the comparison of the two levels of analysis, the most interesting difference lies in the behavior of *govern.cult*: the distance to the other branches is notably bigger at the macro-level. Of course, as companies in this group typically conduct public services in a regional setting, communicating in English would not really align with the corporate identity or the companies' and the public's needs. Also, in Belgium, several legal restrictions are imposed on governmental language use: government officials have to use Dutch when addressing inhabitants of the "homogeneous Dutch community" (i.e., roughly the Flemish territory, excluding a handful of municipalities with language facilities, located at the edge of Brussels and along the language border). Although these laws were primarily designed to restrict the use of French, the formulation of the laws is language neutral, stating that they serve to prevent "widespread multilingualism" (see *Steunpunt Vlaanderen's Taalwetwijzer*). Hence, the laws also impose a restriction on the use of English at the macro-level, which helps explain the pattern found in Fig. 12. The reason that we do not find complete separation (i.e., a 0% success rate for English) is mainly due to the social-profit companies. This more outspoken behavior of government and social-profit organizations at the macro-level also helps explain why branch of industry has a bigger impact on macro-level language choice than on micro-level language choice, despite the high similarities in the behavior of most of the branches.

4.3.4 Job content

In assessing the effect of the job content on the use of English, we again chose IT as the reference value, following the same reasoning as above. Fig. 14 shows the results, again following the macro-level hierarchy (from more to less English). As quite some differences between the two levels of analysis exist, we complement the plot with a graph (Fig. 15) which exclusively shows the title-level results, following the title-level ranking.

Similar to the effect of branch of industry, most of the job categories behave highly comparably at the macro-level, with only public jobs and the residual category *other* convincingly showing less English than the other categories. Neverthe-

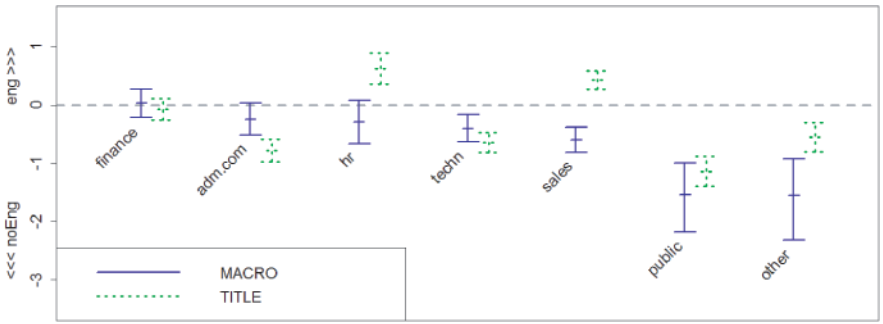

Fig. 14: Effect of job content (ref = "IT")

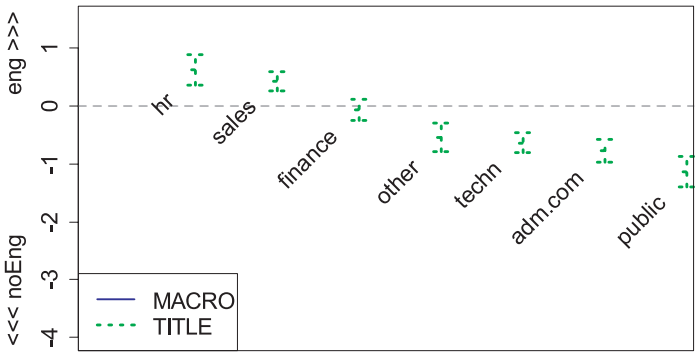

Fig. 15: Effect of job content (title)

less, despite the high degree of homogeneity between the categories, we should note the unexpected high position of administration and communication jobs in the cline. It is not easy to find an interpretation for this effect, but it might be due to more fine-grained differences within each of the categories we distinguished (e.g., level of the job advertised for). Further qualitative analyses would be advisable, but as was mentioned before, the scarcity of information in ads forms a severe impediment.

Also similar to what we saw for branch of industry, the micro-level results more clearly show a cline in the behavior of the different categories than the macro-level results. Here, however, the differences between the different types of jobs are more outspoken than for branch of industry. Based on the confidence intervals for the different categories, we can identify four different groups. Presented from more to less use of English, these are: HR, sales and marketing jobs; next, IT

and finance jobs; third, technical jobs, administration and communication positions and the residual category *other*, and finally public servicing. Overall, this cline follows our initial hypothesis that jobs typical of the modern servicing industry will use most English, followed by more technical and administrative jobs, with the public office jobs lowest on the cline.

Concluding with the comparison of the two levels of analysis, we find results similar to branch of industry, i.e., homogeneity between most of the job categories at the macro-level, and a cline at the micro-level. We also find the same low position for public jobs as for ads written by *govern.cult*, but in this case, the difference is not more outspoken for the macro-level. Overall, the degree of homogeneity of the categories at the macro-level is even bigger for job content than for branch of industry, which helps explain its more limited importance in the ANOVAs (Fig. 6 and Fig. 7).

4.3.5 HR agency and size

The final two parameters we identified for this study both behave as expected. Fig. 16 shows the effect of the cooperation of external HR agencies in drafting the ad, with ads written without such external consultancy as the reference point. For both levels, we see that more English is used when the ad is drafted by external HR agencies. This pattern follows our initial hypothesis: As attitudinal studies show, it is primarily HR officers who believe that using English has a positive effect on the recruitees. The effect of the parameter is comparable at both levels, which is shown by the overlapping confidence intervals.

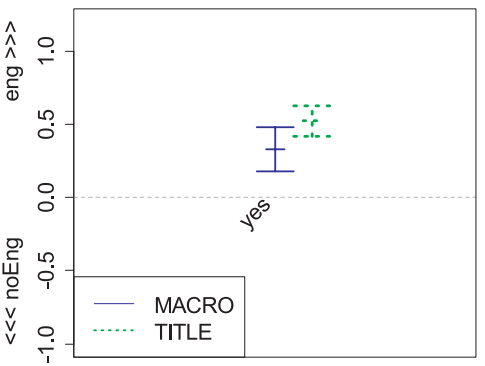

Fig. 16: Effect of HR Agency (ref = "no agency")

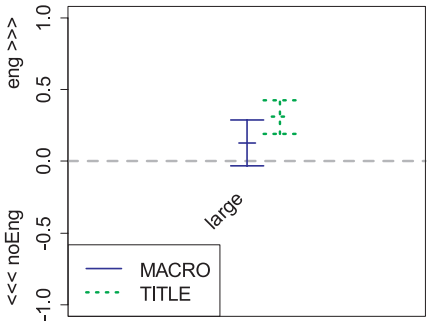

Fig. 17: Effect of size (ref = "small ad")

The effect of the size of the ad, shown in Fig. 17 (small ads being the reference values), also follows our hypothesis: more English is used in bigger ads, which we believe are mainly written out by bigger firms. Again, the effect is highly comparable at both levels of analysis. As was mentioned before, not too much meaning should be attached to the results of this parameter: not only because the general reasoning is rather far-fetched, but also because the predictor only has minor importance in the ANOVAs of the regression models. This is especially true for the macro-model, where the pattern can only be considered a tendency, not a statistically significant pattern (as the p-value for the effect is only 0.11).

5 Conclusion

This paper aimed at tracing differences in the communicative and situational parameters underlying the micro- and macro-level spread of English by analyzing a corpus of job ads published in Dutch job ad magazines. We found a large difference in the basic proportion of English at both levels, but zooming in, we were able to unearth quite a few similarities in the factors contributing to the presence of English, mainly as concerns the impact of HR agency and size, but also for branch of industry and job content. Specifically, we found that for both levels, English is used more frequently in the technological and financial domain, and least so in the public sector (and for public office jobs). Also, we found that ads written by external HR firms contain more English than ads written by internal staff. Next to these similarities, we also found some clear differences between the two levels of analyses. For the impact of job content and branch of industry, the analyses revealed more homogeneity between the different types of jobs and companies at the macro-level than at the title-level. The effect of diachronic evolution

of and regional variation in the use of English shows more striking differences. These patterns were linked to cultural patterns of the spread of English in general and of the linguistic regions discussed in particular. For the micro-level, we found significantly less English in our Belgian Dutch dataset than in our Netherlandic Dutch dataset. Zooming in on the diachronic development of the use of micro-level English in both regions, we found that this lower use of English in *Vacature* is a reflection of the purist tradition of Flanders, which should be considered to be no more than a historical legacy. For both regions, we found that micro-level use of English is significantly more frequent and has grown significantly faster than macro-level use of English.

Focusing on future work, we see two reasons to conduct more fine-grained analyses of micro-level language choice. A first issue is the coarseness of our micro-level coding: by relying on a binary classification, English-only titles and mixed titles are currently pooled together. It might however be interesting to focus specifically on the mixed titles, verifying in which parts of the title we find English and Dutch elements respectively. A second issue is the lack of a fine-grained classification of the job titles. Although we argued that the wealth of different job titles indicates the possibility of naming the same job with a variety of titles, ad writers often draw from a basic set of lexical elements (e.g., *advisor*, *manager*, *senior*, *experienced* . . .) in drafting titles. To deal with these issues, we intend to split up the occupational title in its constituent parts (the head noun and the different modifiers) and to verify in which of these parts English is used most often.

Although such improvements to the micro-level analyses can be envisaged, we can already draw some important conclusions from the rich results of the present study. Firstly, the use of English in job ads is a highly multifactorial phenomenon. The use of English in this text type should not be attributed to the global spread of English as a single, monolithic force, but it turns out to be mediated by a network of diverse and partly interacting influences. Also, existing claims as to the importance of the symbolic function of English as a prestigious variety need to be nuanced. At least in our dataset, the distribution of English in advertising seems to be motivated to a considerable extent by practical concerns, and not just symbolic ones: English is used most frequently in those branches where companies are typically internationally oriented and hence use English as lingua franca, or for those jobs which originated as part of technological innovations led by the English-speaking world. At the same time, as those jobs are typically iconic for the contemporary, post-industrial global economy, the symbolic value of using English cannot be easily disentangled from its practical necessity.

Secondly, on a methodological level, such a multifactorial phenomenon needs to be analyzed using the appropriate multifactorial methods. Not only do

we need large amounts of observational data that are coded for potentially relevant factors, but we also need quantitative techniques to establish their actual relevance. In this respect, we specifically presented a new graphical representation to interpret and compare the behavior of a common set of predictors in two separate regression models. As such, the current paper complements existing accounts in both ELF and anglicism research with a strongly empirical, variationist approach.

Finally and most importantly, this paper focused on comparing two distinct ways in which languages can spread in contact situations. On the macro-level, a language can be used as new means of communication between people. On the micro-level, a language can be used to enrich other languages, e.g., by means of borrowing or codeswitching. Our results reveal strong and hitherto unobserved parallels in the mechanisms underlying language choice at both levels of analyses. As such, both should be considered part of a continuum, as two manifestations of the same underlying process (namely the international spread of English), rather than being conceived of as two clearly separable linguistic phenomena. Consequently, both types of linguistic influence should not be studied in isolation from each other: the theoretical and methodological gap which currently exists between ELF research and anglicism research (and more generally, various types of contact linguistics) should be bridged. This paper takes a first step in that direction, showing that more insight in the mechanisms of language contact, contact-induced change and the diffusion of linguistic influence can be attained by incorporating both perspectives in one comprehensive paradigm.

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Appendix: Regression models

Macro level: logistic regression model

```
Deviance Residuals:
     Min        1Q    Median        3Q       Max
 -1.1878   -0.4654   -0.3009   -0.1760    3.5639

Coefficients:
                    Estimate  Std. Error  z value   Pr(>|z|)
(Intercept)         -1.91840     0.14066  -13.639    < 2e-16  ***
branchsrv.HR        -0.72986     0.13239   -5.513   3.53e-08  ***
branchsales         -1.52638     0.15079  -10.123    < 2e-16  ***
branchfin           -1.18853     0.14844   -8.007   1.18e-15  ***
branchphrm           0.36743     0.14667    2.505   0.012239  *
branchindr          -0.79568     0.10986   -7.243   4.40e-13  ***
brancherg.saf       -1.17813     0.20239   -5.821   5.84e-09  ***
branchfood          -0.94191     0.18693   -5.039   4.68e-07  ***
branchedu.rch       -1.08857     0.21223   -5.129   2.91e-07  ***
branchhealth        -1.19695     0.24456   -4.894   9.86e-07  ***
branchgovern.cult   -2.87244     0.25656  -11.196    < 2e-16  ***
branchunknown       -2.03168     0.20980   -9.684    < 2e-16  ***
period1995-2000      0.60245     0.12672    4.754   1.99e-06  ***
period2000-2005      0.94063     0.12194    7.714   1.22e-14  ***
period2005-2008      1.21589     0.12279    9.902    < 2e-16  ***
jobCthr             -0.28452     0.18635   -1.527   0.126803
jobCtsales          -0.59439     0.10935   -5.436   5.46e-08  ***
jobCtfinance         0.02799     0.12151    0.230   0.817795
jobCttechn          -0.39473     0.11952   -3.303   0.000958  ***
jobCtadm.com        -0.23955     0.13767   -1.740   0.081845  .
jobCtpublic         -1.54999     0.30096   -5.150   2.60e-07  ***
jobCtother          -1.55823     0.35374   -4.405   1.06e-05  ***
hrAgency_Gryes       0.33148     0.07738    4.284   1.84e-05  ***
regionIntermediair  -0.33794     0.08509   -3.971   7.14e-05  ***
sizeGrlarge          0.12983     0.08309    1.563   0.118132
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 7591.5  on 13507  degrees of freedom
Residual deviance: 6646.4  on 13483  degrees of freedom
AIC: 6696.4
```

Title level: logistic regression model

```
Deviance Residuals:
     Min         1Q     Median         3Q        Max
 -2.5382    -0.7909    -0.4213     0.8737     2.7358

Coefficients:
                    Estimate   Std. Error   z value    Pr(>|z|)
(Intercept)         -0.64546      0.10067    -6.412    1.44e-10 ***
jobCthr              0.62481      0.13514     4.623    3.78e-06 ***
jobCtsales           0.42804      0.08189     5.227    1.73e-07 ***
jobCtfinance        -0.07016      0.09122    -0.769       0.442
jobCttechn          -0.63727      0.08672    -7.349    2.00e-13 ***
jobCtadm.com        -0.77664      0.09926    -7.824    5.11e-15 ***
jobCtpublic         -1.13405      0.13500    -8.400     < 2e-16 ***
jobCtother          -0.54723      0.12712    -4.305    1.67e-05 ***
period1995-2000      0.98366      0.06651    14.790     < 2e-16 ***
period2000-2005      1.56290      0.06681    23.395     < 2e-16 ***
period2005-2008      1.93236      0.07030    27.487     < 2e-16 ***
branchsrv.HR        -0.78456      0.11039    -7.107    1.18e-12 ***
branchsales         -1.42794      0.10232   -13.955     < 2e-16 ***
branchfin           -1.35025      0.11256   -11.996     < 2e-16 ***
branchphrm          -0.64454      0.14582    -4.420    9.87e-06 ***
branchindr          -1.19315      0.09488   -12.576     < 2e-16 ***
brancherg.saf       -1.54340      0.13879   -11.120     < 2e-16 ***
branchfood          -0.87282      0.13623    -6.407    1.49e-10 ***
branchedu.rch       -2.06438      0.14619   -14.121     < 2e-16 ***
branchhealth        -1.93871      0.16093   -12.047     < 2e-16 ***
branchgovern.cult   -2.04380      0.10869   -18.803     < 2e-16 ***
branchunknown       -1.75137      0.11797   -14.846     < 2e-16 ***
regionIntermediair   0.94086      0.05558    16.927     < 2e-16 ***
hrAgency_Gryes       0.52474      0.05335     9.835     < 2e-16 ***
sizeGrlarge          0.30997      0.06001     5.165    2.40e-07 ***
---
Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 17170  on 13093  degrees of freedom
Residual deviance: 13283  on 13069  degrees of freedom
AIC: 13333
```