The sociolinguistic relevance of regional categories

Some evidence from word-final consonant devoicing in French spoken in Belgium

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Several authors have claimed that regional variation in language is no longer very relevant in the French context. In this paper we aim to investigate whether this claim is also valid in Belgium. Although linguistic practices in Wallonia have shown a strong tendency towards homogenization (a term we define below), they are still perceived as significantly different from the standard norm prevalent in France and also as showing internal diversity. Through the analysis of a phonological variable (word-final consonant devoicing), we try to assess to what extent linguistic practices in Wallonia differ from standard French and whether they also manifest significant internal diversity. Our results show that these differences are substantial and reveal structurally distinct ways of speaking French in the areas under scrutiny.

Introduction

French sociolinguists generally agree that there are two reasons why 'diatopic' (regional or geographical) variation in pronunciation has been a relatively neglected research area. One is related to the way sociolinguistics has developed as a discipline in France (see Gadet 1996, 2003; Pooley 2000; Hornsby and Pooley 2001). These authors suggest that sociolinguistics in France developed in different ways from those characterizing British and US sociolinguistics, namely through a much greater focus on linguistic attitudes and rather less on strictly variationist work. The other reason relates to the fact that regional accent differentiation is no longer very salient in French (Gadet 1996; Armstrong 2002). There is, however, another view, that put forward by Walter (1982, esp. p. 52) some time ago, that geographical differences are more significant than social differences in French, and this view

has also been commonly accepted and taken up by several other authors (see Battye and Hintze 1992: 306 ff.; Durand 1993: 258; Blanchet 2001: 59).

Some work has shown that the standardization process has led to the emergence of new regional varieties of French, especially in urban regions at the periphery of European Francophonie (the Nord-Pas-de-Calais, see Pooley 1996 and Hornsby 2006; southern France, see Taylor 1996; Belgium, see Hambye 2005).

The aim of this chapter is to contribute to the evaluation of linguistic standardization in French-speaking Belgium in general and in Wallonia in particular.[1] Although linguistic practices in Wallonia have shown a strong tendency towards homogenization (using this term to cover both standardization and leveling) since the end of the First World War (Hambye 2008) – notably through the decline or at least weakening of traditional regional languages (mainly *wallon* and *picard*) – these practices are still perceived as significantly different from the standard norm prevalent in France, and also as showing internal diversity. Indeed, descriptions of the particular characteristics of a supposed 'Belgian French' have shed light both on some widespread linguistic features in Belgium which are unknown south of the Belgian-French border (the famous *statalismes* of Pohl 1983, 1985) and on more localized characteristics varying from one region to another (see Hambye 2005: 69–96 for a survey). Furthermore, speakers from Brussels and Wallonia often stress the diversity of the French spoken in Belgium (associating different ways of speaking with the major cities or sub-regions), when they are asked to comment on the distinguishing features of French spoken in Belgium (Lafontaine 1991: 33–34; Francard 1993; Moreau *et al.* 1999: 27). As Francard points out, this internal differentiation makes a major distinction between the west of Wallonia – very close to France geographically and in terms of its social practices and economic activities – and the eastern part, generally assumed to be more ready to display its local identity, partly through language (Francard 2001b: 256).

However, to the extent that these descriptions rely mainly on disparate observations and subjective beliefs and not on systematically gathered empirical data, it is still difficult to assess the distinctiveness and variability of linguistic practices within Wallonia. Differences with respect to the French of France are often said to be fewer than speakers imagine (Francard 2001a), but they can be sharp, salient and qualitatively or symbolically important. Through the analysis of a particular phonological phenomenon (word-final consonant devoicing)[2] in three different towns of Wallonia, we will try to shed light on several questions which still need

1. Wallonia is the southern part of Belgium where most of the French-speaking Belgians live (more than 3 million), the remainder living mainly in the officially bilingual Brussels Region.

2. Word-final consonant devoicing is the process exemplified by *bouge* 'move' pronounced [bu:ʃ]. As is shown by this phonetic transcription, in Belgium at least, accented vowels preceding

answers: To what extent are linguistic practices in Wallonia divergent from the standard Parisian norm, especially among young people? To what extent is there a significant difference between ways of speaking in different sub-regions of French-speaking Belgium? How can we account for these differences, if indeed they exist, knowing that the 'Belgian accent' in French has always been stigmatized and that the French of France still seems to be held up as the standard variety for many speakers in Wallonia? And what role could these differences play in support of social categorization and differentiation?

We first present the context of our study by reporting previous research on the standardization process in Wallonia and on French-speaking Belgians' stance regarding linguistic norms. We focus secondly on the phenomenon under scrutiny, with special attention paid to former descriptions of consonant devoicing in Belgium. We follow this with the presentation of our methodology and results, which are discussed in the final section of the chapter.

Regional French in Belgium and standardization

The traits characteristic of French spoken in Belgium were for a long time the subject of criticism and strong stigmatization. In the traditional view shared by authors like Remacle (1969) or Warnant (1997), regional variation in French is the product of the 'bastardizing' influence of formerly spoken regional languages (the so-called *patois* or *dialectes*) among less educated speakers. Within this framework, regional variation is a contingent language contact phenomenon, which it is assumed will disappear progressively as the diffusion of 'correct' French and instruction in the standard language increase. Convergence towards the standard language, combined with the decline of regional languages, was viewed therefore as the only possible outcome of linguistic practices in modern states like France and Belgium. Purist discourse was so strong at that time that one could indeed imagine that these processes would lead to a complete and definitive rejection of any distinctive feature in the way Belgians spoke French: all the research on language attitudes in Francophone Belgium showed that speakers from Brussels and Wallonia expressed negative attitudes towards their own vernacular and tended to consider that the legitimate form of French was that spoken in France and in Paris in particular (Garsou 1991; Lafontaine 1991; Francard 1993).

Recent studies have shown, however, that Francophone Belgians are ready to evaluate their ways of speaking more positively, as demonstrated for example by

voiced plosive and fricative consonants are usually lengthened and are also pronounced long when the consonant is devoiced.

Moreau through different matched-guise-type studies (Moreau *et al* 1999; Bouchard *et al.* 2004). Different methods of investigation (interviews, questionnaires, etc.) sometimes produced contrasting results where speakers may at the same time despise Parisian French as '*snob*', express their preference for their own way of speaking as the one they 'like' the most, and perhaps continue to consider the French of France as the most 'proper' way of speaking (Francard and Franke 2005; see also Klinkenberg 2000a: 707). As we have argued elsewhere (Hambye 2007, 2008), Belgian Francophones' attitudes towards their language have always been and still are ambivalent (partly because evaluating a variety positively and attributing it legitimacy are two different attitudes), so much so that there still seems to be a gap between Francophone Belgians' norm of reference[3] (which is still located in France) and how they speak (retaining some regional features, even for example in the formal speech of a university professor).

Stigmatized features supposedly inherited from contact with the traditional regional languages may now carry a particular social meaning and value, playing for example the role of positive markers of regional and social identity. In other words, even if standardization is still in progress, the existence of regionally-specific language features in the French spoken in Belgium is not, or not only, a historical residue and a transitional step towards the homogenization of linguistic practices, as it results from current social divisions which are reflected and reproduced through the differentiation of linguistic norms and *habitus*.

Word-final consonant devoicing: sociolinguistic and phonetic perspectives

Word final consonant devoicing (WFCD) has for some time been described as one of the main features characterizing French spoken in Belgium. Indeed, several authors such as Grégoire (1956: 78), Remacle (1969: 121–123), Pohl (1983: 30), Piron (1985: 374), or more recently Klinkenberg (2000b: 345) and Francard (2001a: 252–255) have mentioned this phenomenon in their descriptions of the differences between the pronunciation of French in Belgium and in France. Moreover, written reproductions of devoicing have been attested several times, showing that the phenomenon is consciously perceived by speakers.[4]

In line with the normative perspective of many descriptive works on French spoken in Belgium, most of the writings on WFCD in Belgium consider this

3. We use these terms to designate forms considered as more correct or legitimate in themselves.

4. Internet instances of written forms reproducing WFCD are readily available, in words like *belge* (written *belche*, 'Belgian'), Liège (*Lièche*, the city), *les Rouges* (*les Rouches*, 'The Reds') and *les Mauves* (« Mauffes », 'The Purples'), two Belgian football teams.

phenomenon as a pronunciation defect which is due to the influence of substrate regional languages and of neighbouring Germanic languages in the Brussels area (Flemish and standard Dutch), and found mainly among working-class speakers. Indeed, Wallonia's main endogenous languages, *wallon* and *picard* (see Francard and Morin 1986; Pooley 1994), as well as Dutch (see Baetens-Beardsmore 1971), present word-final consonant devoicing as a phonological rule. Since they hold that WFCD was simply transposed from these contact languages into Belgian French, some authors view it as a categorical phenomenon in French too, which is related to a phonological rule of *neutralization* of the opposition between voiced and voiceless consonants (see Walter 1982: 113; Pohl 1983: 30; Reuse 1987: 110; Warnant 1997: 174).

Recent quantitative sociolinguistic studies by Bauvois (2000, 2002) in the city of Mons (in the *picard* area) are important in helping us gain an idea of the frequency of WFCD in the French spoken in Belgium. An initial study by Moreau and Bauvois (1998) showed that among young informants engaged in post-secondary education, a WFCD frequency of 22.5%[5] was observed during reading and sentence-filling tasks. This percentage rose to 43.3% in another study (Bauvois 2000) among informants from contrasting educational backgrounds (vocational colleges and university). Concerning older informants (between 32 and 43 years old), mainly of a middle-class background, Bauvois (2002) observed a rate of 38% during a conversation designed to be informal and 20% in a reading task. In all the cases, WFCD is more frequent among less educated speakers. Compared to results obtained by Pooley (1994) among speakers from the Nord region of France, these figures seem to indicate that WFCD is particularly frequent in Belgium.

It is important for our purposes to distinguish between WFCD and another phonetic process having similar effects, such as systematic consonant devoicing at the end of a prosodic unit and regressive assimilation which involves the devoicing/voicing of a word-final (or syllable-final) obstruent when it is followed by a voiceless/voiced obstruent.[6] Regressive assimilation is a very general phonetic phenomenon in French, observable in the speech of all speakers: contrary to WFCD, many scholars consider assimilation as almost unavoidable, at least at a syllable boundary if not always at word boundary (cf. Snoeren and Segui 2003; Calliope 1989: 10). A major difference with WFCD is that the latter may appear before a pause, whereas assimilation occurs only before a consonant. In this sense, regressive assimilation is a phonetic phenomenon caused by articulatory

5. Percentages are not always given by the authors. We have calculated them on the basis of raw figures given in the papers.

6. For example, *une robe sale* 'a dirty dress' is pronounced [ynʁɔpsal] when regressive assimilation occurs.

constraints (Smith 1997: 474, 494–496; Snoeren and Segui 2003: 2328); WFCD is a phonological phenomenon reflecting the adoption by the speaker of a particular set of phonological rules and linguistic norms. The two phenomena may nevertheless overlap and be indistinguishable before a voiceless obstruent.

Data collection and analysis

The data analyzed below were collected in the framework of the author's participation in the research project *Phonologie du français contemporain* (PFC).[7] One of the core objectives of this project is to collect recorded data of spoken French everywhere in the Francophone world, using the same methods of speaker sampling, elicitation and transcription (see Durand and Lyche 2003). The recordings used in this study were made during two kinds of interaction with the informants: one was a formal interview (in the traditional Labovian style), while the other was close to an informal conversation involving the informant and one of his or her acquaintances, who also helped to introduce the interviewer for the first interaction.

Surveys of this type were carried out in several places in Francophone Belgium. We use here the data gathered in three cities, Gembloux, Liège and Tournai. These three sites were chosen because they allowed us to capture the sociolinguistic diversity of Wallonia. The Liège conurbation is the biggest in Wallonia and is located in the east of the country. As Francard's quotation above stated, *Liégeois* are known within Francophone Belgium for being proud of their city and for having a very recognisable accent. Gembloux and Tournai are smaller towns, situated in more semi-urban areas, respectively in the centre and the west of Belgium. Tournai is very close to the French border and its inhabitants have regular contacts with French people. These particular links with France can be presumed to have consequences for language attitudes and practices among speakers from Tournai. Against this, we might expect speakers in Tournai and Gembloux to be less ready to follow linguistic changes as they live in less urban areas, and these are known to be more conservative.

In each city, 12 people were recorded: 6 men and 6 women belonging to 3 age groups (AGE1: over 55, AGE2: 35 – 50 and AGE3: under 30) and 3 social groups distinguished by their educational background (EB1: those who did not follow post-secondary education, EB2: those who studied or were studying in a post-secondary institution which is not a university, and EB3: those having followed or following a university degree course). These rather small informant numbers oblige us to be prudent in the interpretations that follow.

7. See http://www.projet-pfc.net/

For each informant, we took into account, in each type of recorded conversation, the first 15 occurrences of a word-final obstruent which was voiced in the standard and written form of the word. We assessed whether the consonant was voiced or not, based on our own perception and on the Praat pitch analysis tool. The Praat analysis was not always very reliable, however, owing to the recording conditions which did not allow a very precise measure of segment voicing. Furthermore, we know that voicing is not the only factor determining the voiced or voiceless nature of a consonant (Smith 1997: 473; Snoeren and Segui 2003). This is why our analysis relied mainly on the perception of the consonants once isolated within the sound signal. Cases where the analysis was impossible to carry out (because of the presence of noise, other speaker overlapping, or when the consonant was simply deleted) were excluded.

The following characteristics were noted for each token of the variable: nature of the word-final consonant, right context (a voiceless/voiced obstruent, a sonorant, a vowel, a schwa or other hesitation vowel or a pause), the left context (vowel or consonant) and the presence/absence of a phrase-final prosodic boundary (where right context was not a pause).

Results

As was expected, different variation patterns were observed between the cities, and in particular a major difference between Tournai on the one hand, and Gembloux and Liège on the other. This difference is shown through the overall N of devoicing among speaker samples in each city (see Appendix, Table 1), which shows statistically significant differences between Tournai and Gembloux and Liège considered together (chi-square = $p < 0.001$). This opposition is clearer when one looks at the way each sub-group differentiates in each city. Figures 1 and 2[8] show that WFCD is a phenomenon characteristic of older and less educated speakers in Liège and Gembloux, whereas it appears not to be affected by external factors in Tournai (where none of the differences between sub-groups are statistically significant).[9]

8. See Appendix, Tables 2 and 3 for detailed results.

9. The score difference between AGE 1 group and AGE2/3 groups is significant both in Gembloux and Liège ($p < 0.001$). Concerning groups differentiated by educational background, the score difference is significant between EB1 and EB2 ($p < 0.01$) and between EB1 and EB3 ($p < 0.001$) in Gembloux; between EB1 and EB3 ($p < 0.001$) in Liège. Note that age and educational background overlap in our sample, as highly-educated people are over-represented in AGE1 group, while less educated informants are mostly in AGE3 group.

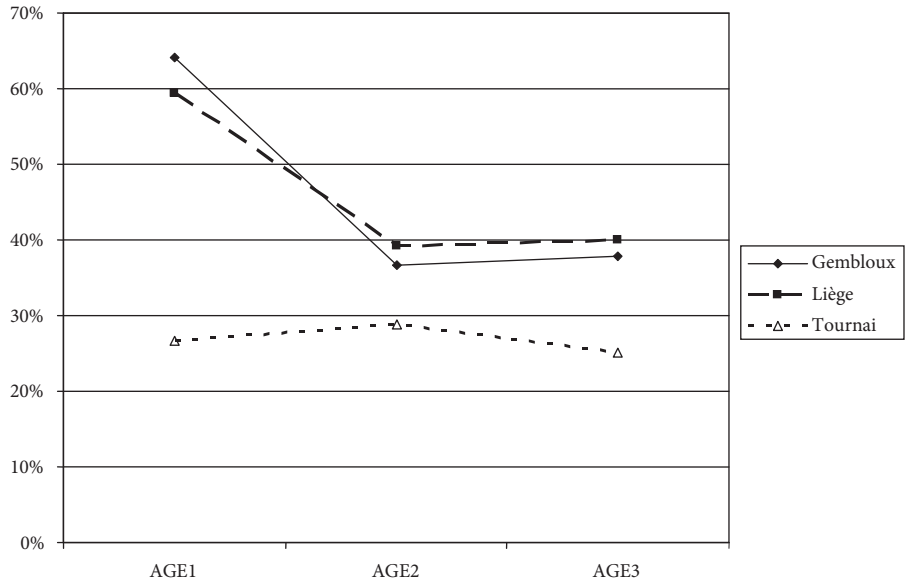

Figure 1. Devoicing against age in Gembloux, Liège and Tournai
Legend. AGE1: over 55; AGE2: 35 – 50; AGE3: under 30

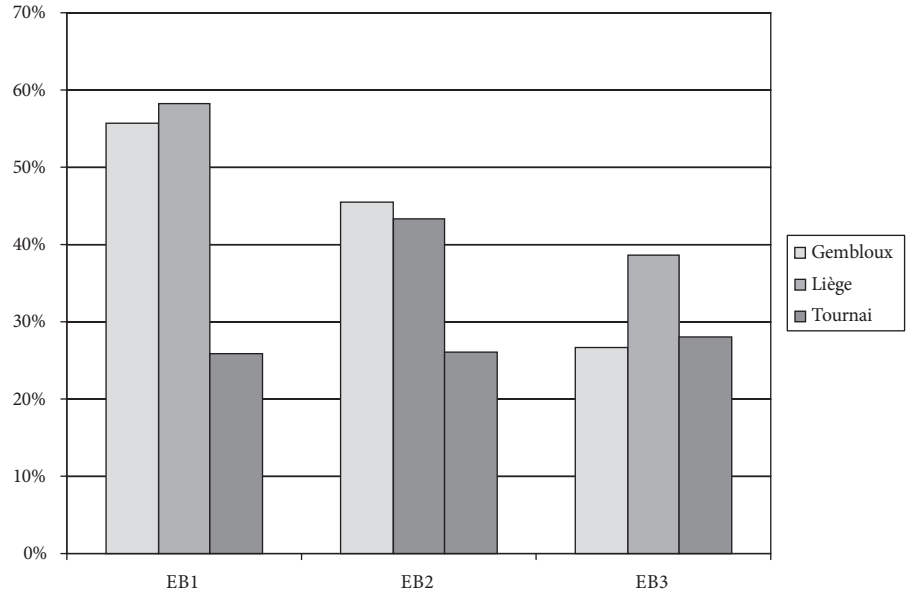

Figure 2. Devoicing against educational background in Gembloux, Liège and Tournai
Legend. EB1: secondary education; EB2: vocational post-secondary education; EB3: university education

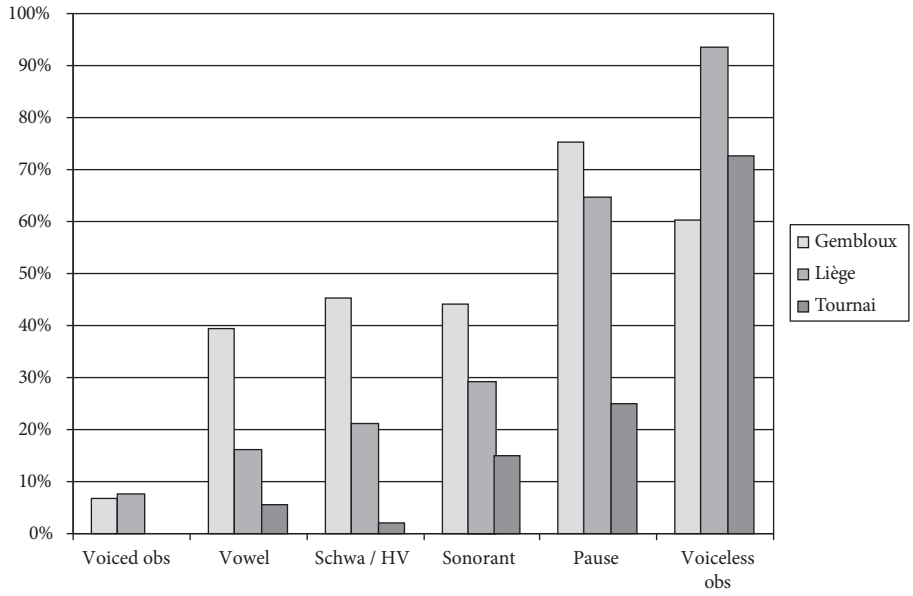

Figure 3. Devoicing and the following context of the consonant in Gembloux, Liège and Tournai

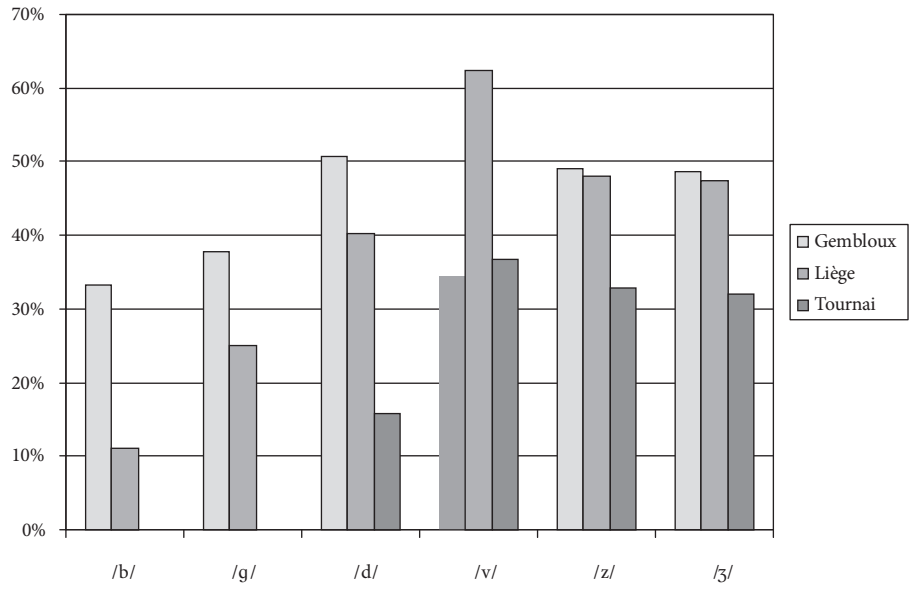

Figure 4. Nature of consonant and devoicing in Gembloux, Liège and Tournai

An analysis of the role of internal factors[10] gives a better understanding of how speakers from Tournai are distinguished from those from the other cities. Figure 3 shows that in Tournai, WFCD appears almost exclusively before a voiceless obstruent (VO) or before a pause (as in *les choses que j'ai* 'the things that I have' and *dis-le à Claude* 'say it to Claude'), i.e. in contexts where devoicing of the word-final segment is favoured by phonetic constraints (see above). At the same time, there is still a noticeable difference in Tournai between the percentages of devoicing before a VO and a pause ($p < 0.001$).

Similarly, we see in Figure 4 that among speakers from Tournai, fricatives are more often devoiced than plosives ($p < 0.01$): *Tournaisiens* tend therefore to devoice consonants which are phonetically most subject to devoicing, as can be seen from our data and from previous studies on consonant devoicing (see above).

We can see on the other hand that speakers from Gembloux have high percentages of devoicing even before a vowel or a hesitation schwa, such that there is no significant difference in the scores of WFCD before VO and before schwa or sonorant (while the same difference is significant in Tournai). Moreover, in Gembloux the difference between the results before VO and before pause is not statistically significant. Results for Liège reveal an intermediate position. As was seen in Tournai, WFCD is clearly more frequent in contexts favouring devoicing (before VO and before a pause; $p < 0.001$). However, in contexts which do not favour devoicing, WFCD is significantly more frequent among *Liégeois* than among *Tournaisiens* (differences are significant for all contexts except before a sonorant).

Similarly, we can see in Figure 3 that the influence of the nature of the word-final consonant is not obvious in Gembloux where WFCD seems much more generalized than in Tournai. In Gembloux, there is no significant difference between the results for the various types of consonants involved; the same is true for Liège, with the exception of the difference between the results for /b/ and those for /v/, /z/ and /ʒ/. The only convergent result among the three groups concerns the percentage of devoicing before a voiced obstruent: it is very low in each city, even if it is only in Tournai that it equals zero, as might be expected in a context where regressive assimilation may block any devoicing.

Finally, we can note that there was no gender difference in our sample and that a difference in score between the two speech styles is only noticeable in Gembloux (devoicing is 40.1% in the interviews and 52.1% in the conversations; the difference between these results is significant at $p < 0.05$).

Looking at the distribution of devoiced tokens among the individual speakers for three contrasting phonological contexts helps us to focus our description and allows us to exclude the possibility that our results were due to some exceptional

10. See Appendix, Tables 4 and 5 for detailed results.

individual behavior. Indeed, they confirm the pattern discussed above and the differences between the three cities. We see for example that in Tournai, all the occurrences of devoicing before a vowel are due to a single speaker (and always in the same word, *week-end*). This speaker is also one of the three who are the only ones in Tournai who present devoicing before a pause (incidentally, this group includes the oldest speaker in the Tournai sample, an 82-year-old woman). When the word-final consonant precedes a VO, devoicing appears in general with similar rates among each speaker in the Tournai sample, showing that it constitutes a regular phenomenon in this case. In Liège, devoicing before VO and before pause is fairly evenly distributed among the speakers, though in the latter context, older speakers score higher than younger. Before a vowel, however, results contrast more sharply: indeed, the four older speakers are responsible for more than 80% of the devoiced tokens. In Gembloux, devoicing is frequent across all members of the speaker sample, even in contexts unfavourable to devoicing. The lower devoicing rate before VO in Gembloux compared to the other cities is also noticeable for every *Gembloutois* – and is still difficult to explain. It is in Gembloux however that we observe the most dramatic individual results. Two speakers have particularly low rates of devoicing: the first, a 37-year-old primary-school teacher simply never pronounced a devoiced consonant within the time observed; the second, a 28-year-old secondary-school graduate teacher engaged in politics, is, with the former, the only informant in the Gembloux sample who presented no cases of devoicing before pause or vowel (in his case devoicing appears only at a low rate before VO). Yet devoicing scores are the more divergent when the right context of the consonant is a vowel: in this context, young speakers (except one man of working-class origin) have devoicing rates under 15% while other speakers' percentages rise above 30% (except of course for the speaker who has no case of devoicing).

Discussion

The results presented above allow us to state that for many speakers in Wallonia, daily linguistic practices still differ from those recognized as standard French (those of the French radio and television for example) and that they are also quite diverse within Walloon Belgium itself. Despite the pressure of standardization, people in French-speaking Belgium maintain their own patterns of speech, even with respect to pronunciation where any divergence from the standard language is often criticized and almost never evaluated in a positive way (by contrast with lexical items particular to the region which may be valued).

Our results not only confirm the existence of particular norms of linguistic usage, but they also help us to understand how distinctive they are and to what

extent they might tend to converge gradually towards the standard. Two elements are particularly noteworthy. Firstly, we can note that the distance from the standard observed within the linguistic practices in Gembloux and Liège cannot be assigned only to the influence of substrate languages and to the low level of education of the speakers. If it were true that regional variation in Belgian French is due to *dialect* influence among speakers not aware of the standard language, then we would see devoicing with similar frequencies in the three cities and only among older and less educated speakers. Our results indicate that regional differentiation in Belgian French can be the product of a particular normative dynamic, even in a Francophone area deeply affected by the ideology of the standard.

Secondly, it is worth emphasizing that the differences recorded are not only quantitative. Indeed, there is more than a contrast simply in the *frequency* of WFCD between Tournai on one hand, and Gembloux and Liège on the other. We saw that we could clearly distinguish phonological contexts favourable and unfavourable to devoicing. To the extent that Tournaisiens only show devoicing in phonological contexts which favour it, we can consider WFCD among them as being a phonetically conditioned phenomenon. Variation in this case corresponds to what Armstrong (2002: 13–18; Armstrong and Boughton 1998: 52–55) calls natural phonological variables ('*variables naturelles*'), as opposed to arbitrary variables ('*variables arbitraires*'). The latter type constitutes non-predictable forms of variation whereas the former is a consequence of natural tendencies in the articulatory system (like schwa or liquid deletion, assimilations, etc.). According to Armstrong, only the first type of variable is to be found in northern France French, because of the high level of language standardization in this area, and this would explain why phonological variation in this variety is mostly sensitive to the context and to the educational background of the speakers (as these are the main factors conditioning the speaker's degree of resistance to these 'natural' tendencies and the adoption of careful pronunciation).

What we observe in the two other cities in our sample, and especially in Gembloux, is a quite different phenomenon, and another type of variation, which is not purely the result of phonetic constraints and which may even go *arbitrarily* against some natural tendencies of the articulatory system (e.g. when devoicing occurs before a vowel). This means that speakers whose practices match with the more frequent pattern in Gembloux are not necessarily trying to speak standard French. Their pronunciation is not necessarily the reflection of their incapacity to avoid devoicing of final consonants and to control an articulatory tendency which is supposedly mastered by the more highly-educated speakers. Their way of speaking is in fact governed by a different *set* of norms and rules which makes their French qualitatively (structurally) and not only quantitatively different from the standard language.

Differences of this kind may play an important role in the perception of distinctiveness in the way people use French in Belgium. As they create sharper distinctions than purely quantitative differences, these may function as the basis for the social construction of 'accents' and linguistic varieties which themselves contribute to the production and reproduction of boundaries between groups. In this sense, linguistic differentiation as it has been depicted here creates and reflects at the same time differences between geographical entities which have a social meaning since they refer to social groups and social categories. It may thus for example contribute to the production and reproduction of the very idea of a Francophone-Belgian distinctiveness or of the view of regional identities specific to Liégeois or Tournaisiens. This is not insignificant in times of very lively debates about the (Francophone) Belgian identity.

Conclusion

Geographical variation in French is clearly not today what it was for a long time before the massive standardization process of the 20th century. But the fact that the situation has changed does not mean it has disappeared. We have seen in this chapter that there are still salient differences in language use between the French spoken in Belgium and standard French and also significant differences within practices within Belgium. Movements of convergence and divergence seem thus to coexist within the standardization process still in progress.

The evidence presented here confirms the need to go beyond the vision of regional variation in French as a contact-induced phenomenon. Through a narrow and detailed description of our data, we have been able to describe quantitative and qualitative differences which can help us understand how structural differences could be the linguistic backdrop to processes of social categorization (of accents, varieties and groups). At the same time, we have underlined the important limitations of our quantitative analysis as regards the issue of the explanation of speakers' resistance to forces of standardization. In order to obtain a better understanding of the way differences in language norms and practices are socially produced, one has nonetheless to come closer to the linguistic socialization of the speakers, to their experience of the diverse ways of speaking French, and to their discourses about language. An analysis of the kind we have undertaken here is only the first step in that direction.

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Appendix

Table 1. Global results for each city

	Devoiced consonants (N)	Voiced consonants (N)	Total (N)	Devoicing rate (%)
Gembloux	181	213	394	45.9
Liège	144	212	356	40.4
Tournai	100	274	374	26.7
Total	445	679	1124	39.6

Table 2. Results for each city contrasted by age group

		Devoiced consonants (N)	Voiced consonants (N)	Total (N)	Devoicing rate (%)
Gembloux	*AGE1*	82	46	128	64.1
	AGE2	45	78	123	36.6
	AGE3	54	89	143	37.8
Liège	*AGE1*	69	47	116	59.5
	AGE2	47	73	120	39.2
	AGE3	48	72	120	40.0
Tournai	*AGE1*	25	69	94	26.6
	AGE2	36	89	125	28.8
	AGE3	39	116	155	25.2

Table 3. Results for each city contrasted by educational background

		Devoiced consonants (N)	Voiced consonants (N)	Total (N)	Devoicing rate (%)
Gembloux	*EB1*	87	69	156	55.8
	EB2	74	89	163	45.4
	EB3	20	55	75	26.7
Liège	*EB1*	70	50	120	58.3
	EB2	26	34	60	43.3
	EB3	68	108	176	38.6
Tournai	*EB1*	23	66	89	25.8
	EB2	41	116	157	26.1
	EB3	36	92	128	28.1

Table 4. Results for each city contrasted by nature of word-final consonant

		Devoiced consonants (N)	Voiced consonants (N)	Total (N)	Devoicing rate (%)
Gembloux	/b/	2	4	6	33.3
	/d/	39	38	77	50.6
	/g/	14	23	37	37.8
	/v/	19	36	55	34.5
	/z/	53	55	108	49.1
	/ʒ/	54	57	111	48.6
Liège	/b/	1	8	9	11.1
	/d/	25	37	62	40.3
	/g/	3	9	12	25.0
	/v/	20	12	32	62.5
	/z/	58	63	121	47.9
	/ʒ/	57	63	120	47.5
Tournai	/b/	0	9	9	0.0
	/d/	14	75	89	15.7
	/g/	0	18	18	0.0
	/v/	18	31	49	36.7
	/z/	44	90	134	32.8
	/ʒ/	24	51	75	32.0

Table 5. Results for each city contrasted by right context of word-final consonant

		Devoiced consonants (N)	Voiced consonants (N)	Total (N)	Devoicing rate (%)
Gembloux	*Voiced obstruent*	4	55	59	6.8
	Vowel	44	68	112	3.3
	Schwa / hesitation vowel	14	17	31	45.2
	Sonorant	15	19	34	44.1
	Pause	43	14	57	75.4
	Voiceless osbtruent	61	40	101	60.4
Liège	*Voiced obstruent*	2	24	26	7.7
	Vowel	16	83	99	16.2
	Schwa / hesitation vowel	7	26	33	21.2
	Sonorant	9	22	31	29.0
	Pause	59	32	91	64.8
	Voiceless osbtruent	71	5	76	93.4
Tournai	*Voiced obstruent*	0	48	48	0.0
	Vowel	5	84	89	5.6
	Schwa / hesitation vowel	1	46	47	2.1
	Sonorant	6	34	40	15.0
	Pause	11	33	44	25.0
	Voiceless osbtruent	77	29	106	72.6