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Vowel Shortening
in Flemish Pronunciation Guides (1860–2009)

ABSTRACT
This contribution studies how Flemish pronunciation guides, dating from 1860 to 2009, deal with the phenomenon of vowel shortening (Kager 1989, Booij 1995) in Dutch, that is, a lax realization of syllable-final /ai/, /aj/, /ei/, /ui/ and /i/ without primary stress, e.g. m[c]e> [m][c]el ("model"). Especially in Belgian Standard Dutch vowel shortening is quite frequent (Blanquart 1936, Leusen 1965, Toys 2003, Kloots et al. 2014). In a collection of 19 Flemish pronunciation guides, we looked for descriptions and examples of syllable-final “laxed” vowels. Pronunciation guides are part of a language planning process. They were written for prescriptive — that is, didactical — purposes to show what language should sound like. Our study shows that Flemish pronunciation guides do not promote the lax realization. Only for /ai/ the lax variant is occasionally accepted. Stress is mentioned as a relevant factor for /ai/, /aj/ and /ei/.

1. Introduction

For centuries, language teachers and authors of prescriptive language guides have faced the challenge of language variation. Teachers sometimes wonder which language or language variants they should teach (e.g., Sieloff Magnan/ Walz 2002: 15). Generally, written materials and fixed norms are only available for the standard language. Therefore, from a pedagogical perspective, most teachers prefer the standard language as a teaching target (e.g. Bardovi-Harlig/Gass 2002: 2). Authors of prescriptive guides, in their turn, wonder if a language can really be fixed in the way they are codifying it in their dictionaries or manuals (e.g., Hickey 2009: 27). After all, “authors of normative publications do not work in a vacuum” (Vosters et al. 2014: 94) and share the sociolinguistic context — including its variation — of the non-authoritative language users.

The publication of prescriptive language guides is part of a language planning process. Language planning can be defined as “deliberate, conscious, and future-oriented activities aimed at influencing the linguistic repertoire and behavior of speech communities” (Deumert 2001: 644). In this contribution, we
study the codification and the evaluation of one specific phonetic phenomenon in Belgian Dutch: vowel shortening (Kager 1989, Booij 1995). When vowels are "shortened", syllable-final tense vowels without primary stress are realized as their lax counterparts, e.g. m[o]del > m[e]del ("model"). Vowel shortening has already been studied from a phonological and phonetic perspective, but the orthoepic dimension has never been looked at thoroughly. This contribution wants to fill this gap. Especially in Belgian Dutch pronunciation, vowel shortening is not uncommon (see 1.2). The effect of language norms is not easy to measure, but since non-authoritative language users and authors of pronunciation guides share the same sociolinguistic context, "this shared context can shape both norms and usage" (Vosters et al. 2014: 96). This makes it worthwhile to study not only the actual pronunciation, but also the normative dimension of vowel shortening.

The introduction consists of three parts. Belgian Dutch is a national variety of a pluricentric language. This notion is presented in section 1.1, followed by a brief description of the standardization process in Flanders. The notion of vowel shortening is explained in section 1.2. The relevance of our study is discussed in section 1.3.

1.1 Belgian Dutch: A Variety of a Pluricentric Language

Dutch is a Germanic language spoken by approximately 23 million people. It is an official language in the Netherlands, Belgium, Suriname as well as on the Caribbean Islands of Aruba, Curacao and St. Martin. Dutch is considered to be a pluricentric language. Pluricentric languages are "languages with several interacting centers, each providing a national variety with at least some of its own (codified) norms" (Clyne 1992: 1). In this contribution we focus on Belgian Dutch. This variety is spoken in Flanders, the northern part of Belgium, by approximately 6 million speakers.

The standardization process of Netherlandic Dutch started in the 16th-17th century, when economical, political and social developments led to increasing mobility, the rise of a national identity, and a growing significance of the written form of the language (van der Sijs 2004: 29). In the region that is now known as the northern part of Belgium, the first true attempts to standardize Dutch were made in the 18th century. Especially towards the end of the 18th century, the idea grew that northern and southern Dutch were separate, independent varieties (Rutten 2011: 14-15). However, at the same time, the language of politics, science and culture was French, the language of the Enlightenment. In other words, in order to be (come) part of the intellectual and social elite, one had to master French (van der Sijs/Willemsen 2009: 254-255).

Under the Dutch government of Willem I (1815-30) the use of Dutch was promoted in the whole of Belgium. However, after the independence of Belgium (1830), citizens officially had "the freedom of language choice", but in practice, the dominance of French was re-established (van der Sijs/Willemsen 2009: 276). In the course of the 19th century, the so-called "Flemish Movement" opposed against the dominant position of French and recognized the importance of a standardized variety of Dutch for the northern part of Belgium. Eventually, the standard language of the Netherlands was "imported" in Flanders (Suffeleers 1979).

As a result of this integrationist policy, Belgian and Netherlandic Dutch "do not have separate written standards" (Grondelaers/van Hout 2011: 207). Since the second half of the 19th century, both varieties share the same spelling and spelling reforms are always implemented uniformly at both sides of the border. Also at the lexical level Belgian and Netherlandic Dutch show convergence (Geeraerts et al. 1999). But this convergence is mainly unidirectional: Flemish variants are replaced by their Netherlandic counterparts. Traditionally, dictionaries use a separate label to mark lexical items that are typical for Dutch in Flanders, whereas Netherlandic Dutch items do not get a label. Only quite recently, lexicographers have adopted the idea that Dutch is a pluricentric language, resulting in the introduction of a specific label for words typical for Dutch in the Netherlands (De Caluwé 2012).

On the pronunciation level, however, things are different. The integrationist language policy never yielded an identical pronunciation for both national varieties of Dutch. On the contrary: Van de Velde (1996) showed that in the course of the 20th century, the standard pronunciation of Belgian and Netherlandic Dutch clearly diverged (see also Van de Velde et al. 2010). Although the phonological system of Standard Dutch has always been presented as one and indivisible (e.g. Booij 1995), many pronunciation manuals did (and do) account for national variation. In Flemish manuals, several Flemish variants were (and are) widely accepted (Kloos 2000). A list of Flemish pronunciation manuals is presented in the Appendix.

1.2 Vowel Shortening: Tense Vowels Become Lax

The vowel system of Standard Dutch contains seven tense vowels (/a/, /e/, /i/, /o/, /ø/, /u/, /ø/) and five lax vowels (/å/, /ø/, /ø/, /æ/, /ø/) and five lax vowels (/a', /ø/, /ø/, /ø/, /æ/) leaving diphthongs and schwa out of consideration. Both sets of vowels can be distinguished on

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1) For an introduction into the history, geography and linguistic structure of Dutch, see De Schutter (1994). For a brief state of the art, see the website of the Nederlandse Taalunie (Dutch Language Union) — http://taalunie.org/nederlandse-taalunie [Last retrieved March 29, 2014].

2) In the Netherlands, the vowels /ø/, /ø/ and /ø/ have a slightly diphthongal realization (e.g. Adank et al. 2004, 2007; Van de Velde et al. 1997). However, inventories of Dutch phonemes...
the basis of distributional features (e.g. Moulton 1962, Kager 1989, Booij 1995). For example, only tense vowels appear before the voiced fricatives /v/ and /z/ (with only a few exceptions in the entire lexicon, such as the loan words puzzel (‘puzzle’), mazzel (‘mazel’). As a consequence, words like zevan (‘seven’) and lezen (‘read’) are pronounced with [e] in the first syllable, not with [ə]. However, tense vowels do not appear before /y/ (e.g. tong /ton/ ‘tongue’) or before a consonant cluster consisting of a liquid or nasal followed by a non-coronal consonant (e.g. lamp /lamp/ ‘lamp’). Hence, /ton/ and /lamp/ are not considered to be felicitous Standard Dutch words.

Since the early days of Dutch phonology, it is claimed that Dutch syllables cannot end in a lax vowel. This claim is more formally expressed as the Bimoraic Constraint (Kager 1989) and the Minimal Rhyme Constraint (Booij 1995). This regularity will be explored in the present study. Contrary to what these constraints seem to suggest, there are solid indications that especially speakers of Belgian Dutch do produce lax vowels at the end of syllables (e.g. Blankvaert 1936, Leenen 1965, Tops 2003). Moreover, psycholinguistic syllabification tasks have shown that children produce quite a lot of syllables that end in a lax vowel (e.g. Gillis/De Schutter 1996). Furthermore, in classification tasks, unstressed tense vowels originating from spontaneous speech were quite frequently perceived as lax vowels (e.g. Koopmans-van Beinum 1980, Koots et al. 2014), especially by Flemish but also by Dutch listeners (Koots et al. 2006).

From a phonological point of view, these deviations from the Minimal Rhyme Constraint and the Bimoraic Constraint are difficult to explain. However, Kager (2003: 140) presents an interesting refining of the Bimoraic Constraint that could — at least partially — explain the presence of syllable-final lax vowels: “de bimorische beperking [is] zeer zwak in onbeklemtomde lettergrepen” (‘the Bimoraic Constraint is very weak in unstressed syllables’). In other words, when a syllable is unstressed, lax vowels need not always be followed by a consonant.

When an originally tense vowel is realized as its lax counterpart, phonologists call this phenomenon vowel shortening, even though — see below — the tense-lax distinction should not (only) be interpreted in terms of vowel duration. Other terms found in the literature are taxing and qualitative neutralization (e.g. Van Oostendorp 2000, Botma et al. 2012). According to Booij (1995) and Kager (1989), vowel shortening would be typical for word-initial syllables not bearing the main stress of the word. However, some (Flemish) authors have claimed that speakers — especially in Flanders — also produce word-final lax vowels (e.g. Blankvaert 1936, Leenen 1965, Tops 2003). Words do not differentiate between diphthongized and non-diphthongized tense vowels (e.g. Booij 1995).
the undesired variants, and in this way pronunciation manuals offer interesting information about regional (and social) linguistic variation. For example, Hickey (2009) showed that the 18th century pronunciation dictionaries of Thomas Sheridan and John Walker offer important insights into phonological changes in British English. Sheridan and Walker aimed at a fixed and unified standard without regionalism. However, at the same time, they were very well aware of the massive variation in the speech of their contemporaries. Regional variants were described as "improprieties". Precisely these observations are relevant for present-day scholars in English pronunciation.

The same holds for Flemish prescriptive manuals. For example, the late-18th century Antwerp teacher and school inspector Jan Des Roches paid attention to the phenomenon of (improper) word-initial /l/-deletion in his Nieuwe Nederduitsche spraek-konst ("New Dutch Grammar") (Rutten 2011: 66). Earlier, the anonymous writer of Snoeijmes der Vlaemsche Tale ("Pruning Shears of the Flemish Language"), one of the rare prescriptive sources for the southern part of the Dutch language area dating back from the first half of the 18th century, already gave several examples of regional variation in pronunciation as well (Vosters/Rutten 2013).

Studying vowel shortening from an orthoepic point of view is also useful for another reason. This (preparatory) research is needed when we want to discuss the effectiveness of the guidelines given in pronunciation guides. Flanders has an extensive tradition of language legislation, prescriptive language manuals and campaigns to promote the use of the standard language in schools and by the media (e.g. Sufleere 1979, Willemen/Haeseryn 1998, Witte/Van Velthoven 2010). However, only quite recently scholars have become interested in assessing the effectiveness of all these, instructions and prescriptions. For example, Vanhecke (2004) studied the impact of language planning activities on the language choice (Dutch vs. French) of city hall administrations in 19th century Flanders. The effect of 20th century manuals and handbooks for linguistic propaganda on lexical choice in Flanders is studied by Geeraerts/Grondelaers (1997) and Hendrickx (2010). Up till now studies of Dutch pronunciation norms are rare (Kloots 2000). Nevertheless it is clear that if we want to study the effectiveness of these norms geared more specifically towards the syllable-final lax vowels, we first have to find out what the norm looks — or in this case: sounds — like according to the Flemish language planning tradition from the nineteenth century to the present day.

2. Method

This contribution focuses on the pronunciation of syllable-final tense vowels without primary stress. We examine whether the advice in Flemish pronunciation guides is in line with the phonological claim that Dutch syllables never end in a lax vowel (Booij 1995, Kager 1989). We concentrate on the shortening of /æ/, /oː/, /eː/, /ɪ/ and /ʊ/. The vowels /ʌ/ and /ɒ/ are left out of consideration since they are less frequent in Dutch (Luyckx et al. 2007).

The sample of pronunciation manuals is constructed as follows. The online library catalogue of the University of Antwerp was searched for the following keywords: uitspraak, uitspraakcursus, uitspraakwoordenboek, uitspraakgids, uitspraakklankleer, uitspraakvademecum, uitspraakwoordenboek (that is, 'pronunciation', 'pronunciation course', 'pronunciation mistakes', 'pronunciation guide', 'pronunciation manual', 'pronunciation handbook', 'pronunciation advice', 'pronunciation dictionary'). All book records were carefully read and the relevant manuals were selected. Since we wanted to focus on the Flemish standard pronunciation, manuals published in the Netherlands and/or written by a Dutch author were excluded. Furthermore, we excluded pronunciation courses that only consisted of exercises, manuals for non-native speakers of Dutch, books focussing on the pronunciation habits of one specific region (e.g. Antwerp) and a 1950's method for primary schools (which also lacked the prerequisite theoretical support).

The resulting sample contains 19 Flemish pronunciation manuals. The bibliographic details can be found in the Appendix. The oldest guide dates from the second half of the 19th century (Ternest 1860). Only just before the First World War, two alternatives came on the Flemish market: Verachtert (1911) and Scherpé (1912). From that moment on, new pronunciation guides were published on a regular basis, even during the two world wars: Bossaerts (1917), Demanet (1939), Vander Plaets (1941), Fonteyne (1942), Blanquaert (1957), Musche (1962), Van Passel (1963), De Coninck (1970), Van Haver (1972), Scherpé (1979), Van Roey/Frateau (1981), Van Muelen (1990), Aalbrecht et al. (1998), Beheydt et al. (1999), Timmermans (2008) and Lacroix (2009).

In these manuals, we looked for explicit descriptions of vowel shortening of /æ/, /oː/, /eː/, /ɪ/ and /ʊ/. When vowel shortening was not explicitly discussed, we looked for examples of words with syllable-final vowels without primary stress (e.g. hotel, student, villa) and registered how these vowels — according to the author(s) — should be pronounced. The results are presented in section 3.

3. Results

Since no systematic differences were found between the older and the newer guides, all results are presented together in Table 1. In fact, it is not surprising that older and newer manuals show the same tendencies. A comparison of the Standard Dutch pronunciation in recordings of public radio broadcasting from 1935, 1965 and 1995 demonstrated that the Flemish standard pronunciation —
unlike its Netherlandic counterpart — hardly changed over the years (Van de Velde 1996, Van de Velde et al. 2010). When an author does evaluate the shortening of a specific vowel in an atypical way, this evaluation is explicitly discussed.

The first thorough Flemish pronunciation manual was written by Ternest (1860) In an era when spoken media, sound recording techniques, and an international phonetic alphabet were still lacking, while the dialectal influences on the standard language were immense, he tried to show the Flemish reader what Standard Dutch should (not) sound like. At that time the question whether syllables could end in a lax vowel was not yet at issue. However, Ternest’s manual does contain some interesting information on tense and lax vowels in a specific part of Northern Belgium, that is, the province of East Flanders. He observed that many speakers in this region did not systematically differentiate between both vowel types. For example, sentences like hij rolde van de trap (‘he rolled down the stairs’) and God zal hem straffen (‘God will punish him’) were pronounced with [o] resp. [a] instead of [ə] resp. [a]. Years later the same phenomenon was also described in phonological terms by dialectologists (e.g. Taeldeman 1978).

Next, we present the results for 18 Flemish pronunciation manuals, dating from the 20th and 21st century. Table 1 shows for every vowel ([a], [e], [o], [i] and [y]) how many manuals
— promote tense vowels in open syllables without primary stress, either in an explicit description or through examples (“only tense”);
— explicitly accept lax vowels in open syllables without primary stress (“lax OK”);
— do not give any information nor examples on the realization of vowels in open syllables without primary stress (“—”).

According to the phonological literature vowel shortening would be typical for word-initial syllables (Kager 1989, Booij 1995). However, there are indications that Flemish speakers also produce lax vowels at the end of a word (see section 1.2). The pronunciation manuals under study do not systematically differentiate between word-initial and word-internal vowels, but sometimes they do give specific information on word-final realizations. The advice for vowels in word-final position is marked by # in the first column of Table 1.

Table 1 shows that lax realizations are only accepted — to a certain extent — for [a]. Surprisingly, Verachtert (1911) differentiates between paperier (‘paper’) and kalender (‘calendar’). Without further explanation, he calls the first vowel of paperier short and that of kalender halflong. However, the vowel quality remains the same: both words contain [ə] according to the author. Another enigma is the way Vander Plaets (1941) treats word-final [a]. In his

<table>
<thead>
<tr>
<th>Vowel Shortening in Flemish Pronunciation Guides (1860–2009)</th>
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</thead>
<tbody>
<tr>
<td>Example</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>[a]</td>
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<tr>
<td>[a]#</td>
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<tr>
<td>[ε]</td>
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<td>[ε]#</td>
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<tr>
<td>[ε]</td>
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<tr>
<td>[ε]#</td>
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<tr>
<td>[i]</td>
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<tr>
<td>[i]#</td>
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<tr>
<td>[ε]</td>
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<tr>
<td>[ε]#</td>
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<td></td>
</tr>
</tbody>
</table>

Table 1: Preferred pronunciation in syllable-final vowels without primary stress in Flemish pronunciation manuals (n = 18)

alphabetic word list (with phonetic transcriptions), some words end in [a] (e.g. olinea, axioma), whereas others end in [ə] (e.g. acacia, boe).

Unlike the other authors, Scharp (1912) also mentions the lax realization of weakly stressed [o] (e.g. chronologie ‘chronology’) and [ε] (e.g. metaal ‘metal’). Since he does not add any negative comments, we assume that he approves these lax realizations. Blanquer (1957) is the only author who is open to the lax realization of /i/. He describes this lax pronunciation as a new trend: “in sommige vreemde woorden begint de /i/ zelfs in open lettergreep door te dringen” (‘in some foreign words /i/ even starts to appear in open syllables’). For example, he heard the same lax vowel in both the first and the second syllable of the word ministrer (‘minister’). As far as we know, this trend has never been noticed in another manual.

Finally, we study the potential influence of lexical stress. Table 2 shows how many pronunciation manuals mention the factor stress when they discuss the syllable-final vowels of words like hotel, student and vill. There appears to be a clear difference between /a/ and /ε/ on one hand and /i/ and /y/ on the other hand: stress is mentioned regularly for /a/ and /ε/, but not for the high vowels /i/ and /y/.

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- 146 -
Table 2: Flemish manuals in which the quality of syllable-final vowels is explicitly associated with stress (n = 18)

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Stress is Mentioned</th>
<th>Stress is Not Mentioned</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>/a/</td>
<td>9</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>/o/</td>
<td>8</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>/e/</td>
<td>6</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>/i/</td>
<td>0</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>/y/</td>
<td>1</td>
<td>17</td>
<td>18</td>
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<tr>
<td></td>
<td>24</td>
<td>66</td>
<td>90</td>
</tr>
</tbody>
</table>

Discussion

The overview of how pronunciation manuals treat vowel shortening reveals that lax realizations of syllable-final tense vowels are only accepted — by some authors — for /a/. The fact that pronunciation manuals pay special attention to /a/ can be linked to a recurring observation in the phonological literature. Although Dutch syllables are assumed to end in a tense vowel, “shortened” /a/’s are generally accepted (e.g. Kager 1989, Booij 1995).

According to the phonological descriptions of Kager (1989) and Booij (1995), vowel shortening would be typical for initial syllables (section 1.2). However, six Flemish authors of pronunciation manuals also accept word-final [a] in, for example, Afrika (‘Africa’), dogma (‘dogma’) and drama (‘drama’). This finding can be linked to the categorization task reported in Kloots et al. (2014) where the tendency for tense vowels to be categorized as lax was less outspoken (but certainly not absent) in word-final position.

Only the comprehensive pronunciation dictionary of De Coninck (1970) contains (a few) words that end in a weakly stressed or unstressed /e/ or /y/, all other pronunciation guides ignore /e/ and /y/ in word final position. This may be due to the frequency and the distribution of vowels in Dutch. Studies of phoneme frequencies reveal that /y/ is quite infrequent in Dutch (e.g. Koopmans-van Beinum 1980, Luyckx et al. 2007). Moreover, not all stress patterns are equally frequent in Dutch and some phonemes seem to prefer particular positions in a word over others (e.g. Daelmans et al. 1994). For example, word final unstressed [e] is quite unusual in Standard Dutch. In fact, it is only used in some proper nouns (e.g. Antigone) and in specialized vocabulary (e.g. proceso). In none of the manuals under study the examples were taken from a specific corpus or selected because of their high frequency, but our study reveals that, nevertheless, the choice of the examples (unconsciously) does reflect some general tendencies in the frequency distribution of phonemes relative to their position in the word.

In section 1.3 we assumed that authors of pronunciation guides are excellent observers. However, all in all, the pronunciation manuals did not pay much explicit attention to the phenomenon of vowel shortening: if mentioned at all, the pieces of advice reported in Table 1 are based on non-commented examples. Almost no attempts are made to “fight” vowel shortening in an explicit, systematic way.

On the other hand, vowel shortening is clearly not promoted either. Only for /a/, several authors explicitly approve of the syllable-final lax realization. For the other vowels the syllable-final realization without primary stress is neglected or it is illustrated with examples containing a tense vowel. In other words, our study did show that, except for /a/, Flemish pronunciation guides cannot be claimed to be the “source” of vowel shortening in Belgian Dutch.

Why is vowel shortening not discussed more explicitly? We see several possible explanations for this lacuna. First of all, some authors may not have noticed the subtle vowel differences or did not want to bother the reader with it. After all, as mentioned in section 1.2, the tense-lax distinction does not correspond to one specific, clear-cut phonetic feature. On the other hand, the majority of the pronunciation guides did notice the shortening of /a/, which suggests that they were not completely unfamiliar with the phenomenon.

Another possibility is that the Flemish pronunciation planners hesitated to mention vowel shortening since this phenomenon has been neglected in most Netherlandic pronunciation manuals and books on Dutch phonology. However, this explanation does not seem very plausible, since for several other variables (e.g. diphthongization of the long mid vowels /e/ and /o/), many Flemish pronunciation manuals explicitly plead against the Netherlandic variant (Kloots 2000).

A third explanation is didactic in nature. Maybe the authors were afraid that learners would get confused. Tense and lax variants can be regarded as a kind of faux amis. Traditionally, lists of faux amis are provided by teachers to prevent confusion, but of course, these lists can unintentionally cause confusion as well (e.g. Boers 2011: 56–58). On the other hand, faux amis can also be used as a basis for an “explicit discussion of the degree of equivalence” (Cook 2010: 140). In this perspective, not paying attention to the tense-lax distinction is a missed opportunity. A discussion of the similarities and the differences between sounds could help users to refine their perception and, eventually, in a next step, their production of Dutch vowels.

Finally, we also studied the variable stress. The authors of pronunciation manuals are clearly aware that vowel shortening is typical for vowels without
primary stress. However, the manuals (almost) never mention the possible influence of stress explicitly for /i/ and /y/. In the phonological literature on vowel shortening, no distinction is made between the influence of stress on /a/-, /e/- and /o/- on the one hand and the influence of stress on /i/ and /y/ on the other hand. However, this finding does remind us of the durational dichotomy between /a/-/e/-/o/- (with a variable duration) and /i/-/y/- (without a more or less fixed duration) (e.g. Rietveld et al. 2004). Whereas for /a/-, /e/- and /o/- vowel shortening goes together with a decrease in vowel length, tense and "laxed" /i/ and /y/ have the same duration. The high vowels /i/ and /y/ are only long before /s/. Unstressed vowels usually have a shorter duration than their stressed counterparts (e.g. Koopmans-Beuninck 1980, Rietveld et al. 2004), but for /i/ and /y/, the difference in length, caused by the factor stress, is minimal.

5. Conclusion

Flanders has a long tradition of language planning, including the compilation of pronunciation manuals. In this contribution we investigated if and how the phenomenon of vowel shortening has been discussed in Flemish pronunciation manuals published between 1860 and 2009. Vowel shortening refers to the lax realization of tense vowels without primary stress in syllable-final position. From a phonological point of view, these lax realizations are violations of the Bimoraic Constraint (Kager 1989) and the Minimal Rhyme Constraint (Booj 1995). Only for /a/ laxing is mentioned but not explained by phonologists. The Flemish pronunciation manuals in our study factually show exactly the same tendency. They do not promote vowel shortening. Only for /a/ the lax variant is occasionally accepted. However, quite often, the desired pronunciation had to be deduced from examples, while a systematic discussion of the phenomenon was lacking. So the question arises to what extent language users become aware of the advice on vowel shortening.

For /a/-, /e/- and /o/-, stress is mentioned as a relevant factor. In fact, this variable offers interesting perspectives for further research as well. The pronunciation manuals use several terms to describe the degree of stress, varying from "onbeklemtoond" ("unstressed") to "bijaccent" ("additional accent"), "licht geaccentueerd" ("slightly stressed") and "accentverzwakking" ("accent weakening"). In future research these terms could be explored in greater depth, so that a distinction can be made between unstressed vowels and vowels with secondary stress.

We conclude that authors of Flemish pronunciation manuals — hearing shortened vowels on a regular basis — have neither been passionate promoters nor fervent opponents of this phenomenon. The non-systematic, almost fragmentary way in which it is described seems to suggest that the shortened vow-
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Verachtert, Evarist  

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Boers, Frank  

Booij, Geert  

Bosma, Bert / Schreggs, Koen / Smakman, Dick  

Clyne, Michael  

Cook, Guy  

Crystal, David  

Daelemans, Walter / Gillis, Steven / Durieux, Gert  

De Caluwé, Johan  

De Schutter, Georges  

Deumert, Ana  

Escudero, Paola / Benders, Titia / Lipski, Silvia  

Geraerts, Dirk / Grondelaers, Stefan  
Hanne Kloots, Steven Gillis

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