Loan words as markers of differentiation*

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1. Introduction

A lot of variation shows up in the pronunciation of standard Dutch, e.g., the long mid vowels show different degrees of diphthongization, voiced fricatives can be (partially) devoiced, numerous /r/-sounds show up and /l/ may vary between light or dark. However, in most cases this is segmental variation that does not change the underlying phonemic representation. Van Bezooijen and Gerritsen (1994: 145) conclude that most words have one single pronunciation in standard Dutch. There is only a minority of words that have two or more phonemically different pronunciation variants. Most of these words are borrowings from another language. Borrowing and the phonological and morphological adaptation of loan words are well-known processes (Weinreich 1968, Van Coetsem 1988). In the present paper the focus is on older non-native Dutch words or loan words that have already been incorporated in the Dutch vocabulary, but that are involved in pronunciation differences between the Netherlands and Flanders. Four phenomena that show variation in the Dutch language area were studied: [s] versus [ts] in words ending in *-tie*, [a] versus [ɛ] in English loan words, nasal versus oral vowels in French loan words and the realization of voiced velar stops. This paper focuses on the analysis of the external factors community, region, age and sex.
Loan words could be excellent sources of variation and markers of between-group differentiation as they can (re-)adapt to linguistic properties of both the donor language and the host language. Van Haeringen (1957), for instance, observed that the pronunciation of French loan words had changed very rapidly in Dutch.

2. Subjects

This study of loan words is part of a large-scale study on the pronunciation of standard Dutch (Van Hout, De Schutter, De Crom, Huinck, Kloots and Van de Velde

Linguistics in the Netherlands 2002, **163–173.**
ISSN 0929–7332 / E-ISSN 1569–9919

1999). The subjects were 160 Dutch language teachers, stratified for community (2), region (4), sex (2) and age (2), as shown in Table 1. The subjects were selected from schools in middle-sized cities. Dutch language teachers are professional language users speaking standard Dutch on a daily basis and as instructors of the standard language they play an important normative role. Moreover, they are accepted as a normative authority, second to broadcasters (Van de Velde and Houtermans 1999).

Table 1. The sample of Dutch language teachers, stratified for community, region, sex and age ($n=160$)

		Core	**Intermediate**	**Peripheral 1**	**Peripheral 2**
The Netherlands		Randstad N-R	Middle N-M	North N-N	South N-S
Young	Male	5	5	5	5
	Female	5	5	5	5
Middle	Male	5	5	5	5
	Female	5	5	5	5
Flanders		Brabant F-B	East-Flanders F-E	West-Flanders F-W	Limburg F-L
Young	Male	5	5	5	5
	Female	5	5	5	5
Middle	Male	5	5	5	5
	Female	5	5	5	5

Subjects were selected in four regions in both the Netherlands and Flanders. In the Netherlands these regions are: 1. the Randstad, i.e. the economic and cultural center of the Netherlands, which also appears to be the core area for ongoing changes in the standard language (cities: Alphen aan den Rijn, Gouda); 2. Middle, i.e. an intermediate zone in the South of Gelderland, along the borders of the Great Rivers (Culemborg, Ede, Elst, Tiel, Veenendaal); 3. North, a peripheral area in Groningen and the North of Drenthe (Assen, Veendam, Winschoten); 4. South, a second peripheral area, i.e. Limburg (Geleen, Roermond, Sittard). In Flanders we were able to cover the four dialect regions: 1. Brabant, i.e. the economic and cultural center of the Dutch-speaking part of Belgium, which also appears to be the core area for ongoing changes in the standard language (Heist-op-den-Berg, Lier); 2. East-Flanders, an intermediate zone (Oudenaarde, Zottegem); 3. West-Flanders, a peripheral zone in the West (Ieper, Poperinge); 4. Limburg, a second peripheral area in the East (Bilzen, Tongeren). At the time of data collection, subjects were living in the region, had lived there before their eighth birthday, and had been living

there for at least eight years before their eighteenth birthday. Two age groups were distinguished: young (ages between 22 and 40) and middle (between 45 and 60). For sex, a biological distinction between male and female was made.

3. Method

The subjects were clearly instructed about the aim of the research project as a study of standard Dutch pronunciation. The subjects had to perform several tasks during the interview. One of them was reading aloud a word list. The word list contained 319 words, among which 40 loan words. The words were presented with fixed intervals of two seconds on the screen of a portable computer. The word list was split in 16 subsets of 18 to 20 words. After every subset there was a small pause: a picture appeared and the following subset was started manually. After 8 subsets the word list task was interrupted and continued about 20 minutes later. Five random orders were used, each order occurring once in every cell of Table 1.

The speech of the subjects was recorded with an AKG C420 headset microphone onto digital audiotape using a portable TASCAM DA-P1 recorder. The recordings were down-sampled to 16 kHz (16 bits). Per speaker the loanwords were stored in a separate sound file. A native speaker of Dutch made phonetic transcriptions of all the words, using the SAMPA conventions. All transcriptions were checked — and corrected, if necessary — by the first author. In cases of doubt, the second author was consulted. In all cases, the authors agreed on the transcription.

4. Variables

In this contribution we focus on four main pronunciation variables, which were incorporated in the list of 40 loan words.

(**tie**): Is ⟨t⟩ in the suffix -*tie* pronounced as [ts] or [s]? Van Bezooijen and Gerritsen (1994) observe that most pronunciation guides point to [s] as the most common variant, while Van Haeringen (1957, 1979) states that, at least in the Netherlands, [ts] has become the most common variant. Heemskerk and Zonneveld (2000) (henceforth HZ), the most recent pronunciation dictionary of Dutch and the only fairly complete one, note that both variants occur in the Netherlands and that [ts] is the most common one; in Flemish Dutch almost exclusively [s] is used. Four words were selected: *ambitie* 'ambition', *frustratie* ('frustration'), *natie* ('nation'), *politie* ('police'). According to HZ (p. 42) these words have exclusively [s] in Flemish Dutch[1], except *politie* which has [ts] as a secondary from. In the Netherlands all these words have [ts] as primary form and [s] as secondary form.

(**ɛ**): Is ⟨a⟩ in English loan words pronounced as [ɛ] or [ɑ]? HZ claim that in the Netherlands the original pronunciation is imitated as closely as possible (with the Dutch [ɛ], not with the more open English [æ]), but that in Flanders spelling pronunciation shows up in most cases. Second, Van de Velde and Taeldeman (1997) argue that the pronunciation of (ɛ) is not stable in Flemish Dutch: large lexical and individual differences show up. These differences are partly due to the competition between English and French influence on Dutch spoken in Flanders. Seven words were selected in our loan word study: *plastic, racket, scanner, smash, snack, tandem, tram*. According to HZ, these words have exclusively [ɛ] pronunciation in the Netherlands;[2] in Flemish Dutch *tram* and *tandem* have exclusively [ɑ], *scanner* and *smash* have exclusively [ɛ], and *plastic* and *snack* both.

($\mathbf{V}_{\mathbf{NAS}}$): Is the nasal vowel in French loan words nasalized or not? HZ (p. 88) signal differences between words, but do not suggest that there are differences between the Netherlands and Flanders. However, due to the potentially stronger French influence on Flemish Dutch, more nasalization of vowels is expected in Flemish Dutch. Seven words were selected: *branche, chanson, croissant, enquête* ('poll'), *mannequin*, *parfum* ('perfume'), *restaurant*. According to HZ *branche*, *chanson*, *mannequin* and *restaurant* are pronounced with nasal vowels; *enquête* and *parfum* with oral vowels; the vowels in *croissant* and *chanson* can be nasal or oral.

(**g**): Is the voiced velar stop in loan words preserved or adapted to the characteristics of the Dutch phonological system, i.e. pronounced as a fricative or as a voiceless stop? The latter variant was frequently attested in the Netherlands by Van Bezooijen and Gerritsen (1994). Five words were selected: *buggy*, *goal*, *goulash*, *guillotine*, *mango*. According to HZ all these words are pronounced with a stop in the Netherlands; in Flanders these words have a fricative as the primary form and a stop as the secondary form.

5. Results

Figure 1 presents the results for (tie). For each word the data are split up by region. The four regions in the Netherlands are represented with filled symbols and connected by solid lines, the four regions in Flanders are represented with open symbols and connected by dashed lines. From left to right the Dutch regions are presented from core to periphery, followed by the Flemish regions from peripheral to core area. The common border is formed by the Limburg provinces (i.e. South in the Netherlands). The maximal score in each region is 20, implying that the 20 speakers always use [ts] and never [s], the minimal score is 0, implying that the 20 speakers never use [ts] and always [s].

Figure 1 shows that [ts] is the typical variant in the Netherlands, and [s] in Flanders. Exception to this rule is the Dutch region South (N-S): in Dutch Limburg

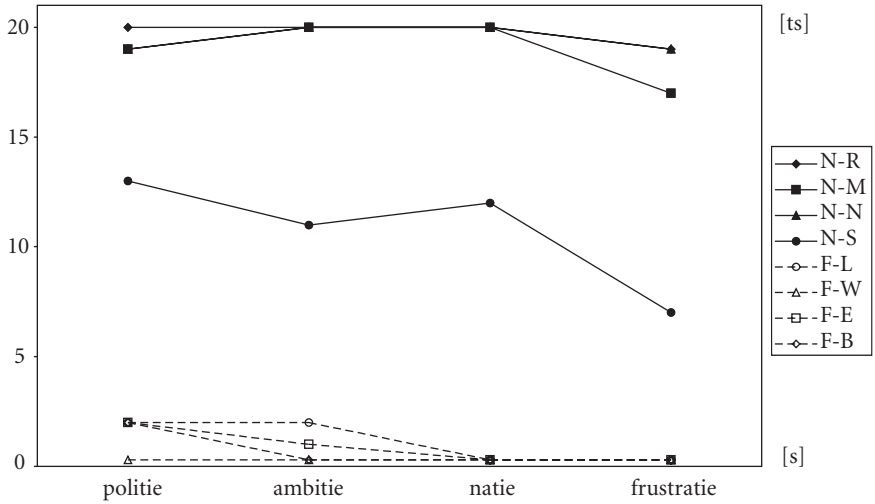

Figure 1. (tie): the pronunciation of [ts] versus [s] in four words, split up by region; for each region the maximal score is 20 (always [ts], never [s]), the minimal score is 0 (never [ts], always [s]).

both variants co-occur equally. Since other regions in the South of the Netherlands (Brabant, Zealand) were not included in the design, we cannot decide whether this is a division between North and South (of the big rivers) in the Netherlands. There are also small lexical differences, e.g. *frustratie* has more frequently [s] than the other words in the Netherlands. Van Haeringen (1957) observed that [ts] pronunciation was gaining rapidly in prestige. According to Van Haeringen (1957: 253) [ts] find its origin in a re-latinization process: influence of the "old pronunciation" of Latin as it was common in Dutch secondary schools in the 19th and 20th century. Van Bezooijen and Gerritsen (1994) explain [s] by a kind of re-frenchification of (tie) in Dutch Limburg, as there has been a distinct influence of French in the South of Limburg during the 19th century. We opt for an explanation in terms of regional differences in the pronunciation of Latin in the Netherlands. De Groot (1950: 17) distinguishes three pronunciation traditions: the old Dutch one, a new scientific one and the Italian one. The Italian or Church Latin pronunciation was more common in catholic schools and /t/ in these words was pronounced as [s]. As catholic schools are mainly found in the Southern, catholic part of the Netherlands, this might explain the presence of [s], next to [ts], in the region South.

Figure 2 presents the results for (ɛ). There is little variation in the Netherlands, almost all realizations being [ɛ]. Only for *tram* (6), *tandem* (3) and *snack* (1) a small number of realizations with [a] are found, a variant which according to HZ does not show up in the Netherlands. *Tram* (56 over the four Flemish regions) and *tandem* (79 over the four Flemish regions) are the words that have the highest

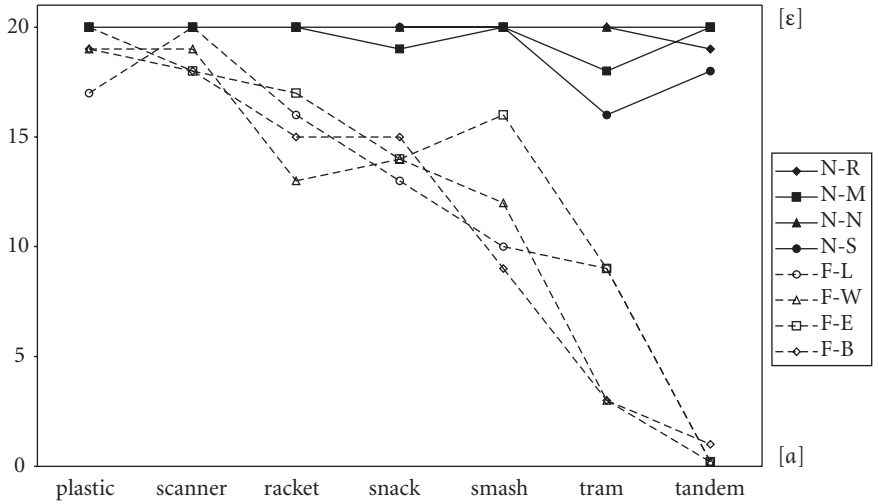

Figure 2. (ɛ): the pronunciation of [ɛ] versus [a] in seven words, split up by region; for each region the maximal score is 20 (always [ɛ], never [a]), the minimal score is 0 (never [ɛ], always [a]).

realizations with [a] in Flanders. *Plastic* and *scanner* are pronounced with [ɛ] in Flanders too. For *racket*, *snack* and *smash* both [ɛ] and [a] are frequently used. Lexical variation is high in Flanders; obviously, the realizations of our subjects (Dutch language teachers) do not correspond with the description given by HZ, which is based on an empirical study by Van de Velde and Taeldeman (1997) (see Section 4). In the latter study *plastic* has a lower and *smash* a higher frequency of [ɛ]. The present results show the importance of careful sampling procedures, especially in cases where variation is high. It seems as if Van de Velde and Taeldeman's sample of informants for the study of (ɛ) is to heavily biased towards East-Flanders, which in our study is the region which has the highest number of [ɛ] realizations for all words in Flanders. It should be noted that in this study the orthography of *racket* and *plastic* may have favored the use of [ɛ] in Flanders, where the more common orthography of these words is *raket* and *plastiek*, both with [a]-pronunciation.

Figure 3 shows the results for (V_{NAS}). Once more, there is a clear difference between the Netherlands and Flanders, but this time there is much more homogeneity in Flanders than in the Netherlands. In Flanders there is a preference for nasal vowels. For most words the nasal vowel is by far the most common variant. The lowest frequency of nasal vowels is found in *restaurant*. The rank order in HZ is not in line with the Flemish data. It corresponds better with the Dutch data. *Branche, chanson* (target vowel in the second syllable), *croissant* and *mannequin* have a high number of nasal realizations; *chanson*, *enquête*, *parfum* and *restaurant* have predominantly

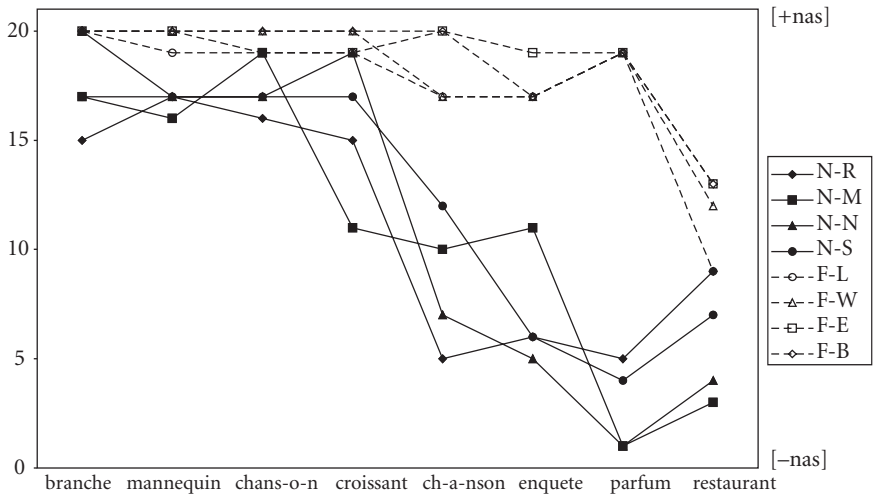

Figure 3. (V_{NAS}): the pronunciation of nasal versus oral vowels in seven words, split up by region; for each region the maximal score is 20 (always nasal, never oral), the minimal score is 0 (never nasal, always oral).

oral realizations. The result for *restaurant* contradicts its classification in HZ as a nasal vowel. There are also interesting lexical differences, but the patterns are more complicated and less clear than expected. We have insufficient data to reflect on historical, orthographic and phonological explanations for these differences.

Finally, the results for (g) are presented in Table 2. For each word the frequency of the variants [g], [k] en [x] is given. For the latter variant we did not make a distinction between voiced [ɣ] and voiceless [x] fricatives, nor between different places of articulation. The data are broken down by region. Voiceless stops [k] are — as expected — extremely rare in Flanders (n=6, 1.5%), in the Netherlands they occur more frequently (n=51, 12.7%). All voiceless stops — except one — show up in word-initial position. Moreover, there are large lexical differences, with [k] being most frequent in *goulash*. Also, there are regional differences in the Netherlands: [k] rarely shows up in South but is rather frequent in North. The Dutch South region seems more similar to the Flemish regions, where fricative realizations are by far the most common ones. There are no systematic differences between word-initial and word-internal positions, but there are clear lexical differences. Finally, in West-Flanders (F-W) fricative realizations are less frequent. West-Flemish speakers of standard Dutch try to avoid back fricatives, as they have a lot of problems — due to dialect interference — with the production of these sounds when speaking standard Dutch.

The influence of the external factors on the loan variables can be studied by means of an analysis of global index scores. These scores were calculated by adding up for each of the informants the results of the individual words. For (tie), (ɛ) and

Table 2. (g): frequency of the variants [g], [k] en [x] in five words, split up by region; for each region the number of observations per word is 20

		N-R	N-M	N-N	N-S	F-L	F-W	F-E	F-B
goal	[g]	18	17	15	10	5	8	12	8
	[k]	2	2	5	1	1	2	0	1
	[x]	0	1	0	9	14	10	8	11
goulash	[g]	14	13	9	8	0	1	9	2
	[k]	6	5	11	1	0	1	1	0
	[x]	0	2	0	11	20	18	10	18
guillotine	[g]	16	14	8	9	5	9	13	5
	[k]	4	3	10	0	0	0	0	0
	[x]	0	3	2	11	15	11	7	15
buggy	[g]	19	20	20	12	6	2	10	4
	[k]	1	0	0	0	0	0	0	0
	[x]	0	0	0	8	14	18	10	16
mango	[g]	19	14	16	14	11	4	15	4
	[k]	0	0	0	0	0	0	0	0
	[x]	1	6	4	6	9	16	5	16

(V_{NAS}) the index scores can be calculated in a straightforward fashion. For (g) two index scores were computed: the index (g_x) gives the relative number of fricative realizations, the index (g_K) gives the relative frequency of the voiceless stop [k].

The external factors to be tested on the basis of the global index scores are community (the Netherlands versus Flanders), region (the four regions in each community), age (young versus middle) and sex (male versus female). An analysis of variance was run with all factors fixed and region nested under community. For each of the index scores, seven interaction effects can show up in addition to four possible main effects. Of the 35 interaction effects only three are significant. Moreover, their partial eta coefficients are low, which shows that these interactions have a very low impact (the maximal value of eta is 1). The significant interaction effects are: sex by age for (ε) (eta = .031), age by region for (V_{NAS}) (eta = .111), and sex by age by region for (g_x) (eta = .117). There are no main effects for age. For sex there is only a significant effect for (V_{NAS}) with a low eta. The effects for community and region, however, are recurrent and strong. An overview of the significant effects, with the eta coefficients, is presented in Table 3. The analysis of the factor region is repeated for the separate communities.

For all loan variables there is a significant difference between the two communities. Especially for (tie) the difference between the Netherlands and Flanders is large and almost categorical. In the Netherlands there is an effect for region, which

Table 3. Partial eta coefficients (maximal value = 1) for the factors community and region (significant effects only); if there is an overall region effect the analysis is repeated for both communities separately

	community	region	region N	region F
(tie)	.890	.453	.503	–
(ε)	.675	–	–	–
(V_{NAS})	.635	–	–	–
(g_X)	.631	.418	.587	.300
(g_K)	.182	.210	.222	–

can be explained by the pattern found in the region South, where both variants show up. For (ε) and (V_{NAS}) there are only significant community effect. The eta coefficients reveal that there is a gradual difference between the Netherlands and Flanders, a trend that is confirmed by the similar effect found for (g_X). For this variable there is also a region effect in the Netherlands and Flanders. In the Netherlands the effect is once more caused by the region South, where fricative realizations are significantly more frequent than in the other regions. In Flanders the effect is caused by West-Flanders, where fricative realizations have a significantly lower frequency than in the other Flemish regions. The community and region effects for (g_K) are considerably weaker. Voiceless stops mainly occur in the Netherlands, and especially in the region North.

6. Conclusions

Our professional group of language users, Dutch language teachers, is marked by large differences in the pronunciation of loan words. Large differences showed up between the Netherlands and Flanders and between individual words, and, to a lesser extent, between the regions. The differences can be summarized as follows. In Flanders (tie) is almost exclusively pronounced with [s], in the Netherlands mainly as [ts]; for (ε) there is a clear preference for [ɛ] in the Netherlands and for [a] in Flanders; nasal vowels are more frequent in Flanders than in the Netherlands; for (g) there are three variants, with voiced and voiceless stops being most frequent in the Netherlands, and fricatives in Flanders. Also, it was observed that the Dutch region South appears to assume an intermediate position between the Netherlands and Flanders. Smaller regional differences showed up in the Netherlands in the region North (more voiceless stops for (g)) and in West-Flanders (fewer fricatives for (g) than in the rest of Flanders).

Is this pattern similar to the divergence in pronunciation between the Netherlands and Flanders over time (Van de Velde 1996)? Whether the differences are

becoming larger cannot be answered as we lack realtime data. The absence of age differences in our apparent time study cannot be used to demonstrate stability. Lexical changes and borrowings (and their pronunciation) can be easily acquired in the course of one's life (Kerswill 1996). Moreover, patterns of age-grading can affect these variables, such that, during their life-span, individual speakers can accommodate their pronunciation of these words to the ruling standard. However, the differences between the two communities are sharp and consistent. And that seems to indicate that the pronunciation differences in non-native Dutch words between the Netherlands and Flanders mark the development of two separate language communities. Convergence would be the natural course for two speech communities in close contact. But loan words seem to follow the opposite tendency, given the size of the differences between the Netherlands and Flanders. An additional conclusion is that loan words, or non-native words, are pre-eminently apt for tracing processes of variation and change, including patterns of differentiation, in larger speech communities.

Notes

* This research is funded by a VNC grant from the Flemish and Dutch Scientific Organizations (FWO-Vlaanderen and NWO). We would like to thank the anonymous reviewer for his constructive comments and Marc van der Poel and Joris Polfliet for their information on the pronunciation of Latin.

1. Heemskerk and Zonneveld (2000) base their observations on Flemish Dutch on a study by Van de Velde and Taeldeman (1997).

2. *Racket* and *snack* are not listed in Heemskerk and Zonneveld (2000). For *snack* we used the pronunciation of its compound *snackbar*.

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