

Geography and frequency in gender change

Data from East and West Flemish dialects

Gunther De Vogelaer

Flemish Research Foundation (FWO) / Ghent University

Like the northern Standard Dutch system, the gender system in present-day southern Dutch dialects is undergoing at least three types of change: (1) influence from Standard Dutch; (2) Brabantic expansion; and (3) a tendency towards resemanticisation of pronominal gender (cf. Audring 2006). The first two developments are, in Labov's (2007) terms, the result of diffusion. As for the latter tendency, geographical evidence and frequency data are presented in support of the hypothesis that it constitutes a spontaneous development in West Flanders, exemplifying imperfect transmission.

1. Introduction: gender in Dutch

Like many gender systems in Germanic, the Standard Dutch gender system shows considerable decline, in that masculine and feminine gender have progressively merged into the so-called 'common' gender. For instance, Standard Dutch has only two definite articles (common *de* vs. neuter *het*) and only distinguishes between common and neuter nouns in adjectival inflection in indefinite NPs (e.g. *een mooi-e man/vrouw* 'a beautiful man/woman' vs. *een mooi kind* 'a beautiful child'). Gender in both older stages of Dutch and in present-day Dutch is described as a 'grammatical' gender system: no semantic regularities can be found in gender assignment. Traditionally, Dutch not only marked gender adnominally: as in German, pronominal gender historically matched the grammatical gender of the antecedent noun. In present-day Standard Dutch however, the pronominal gender seems to be shifting from a grammatical system to a semantic one (Siemund 2002, Audring 2006): count nouns are increasingly referred to using masculine pronouns such as *hij* 'he' and *hem*

2 Gunther De Vogelaer

'him', mass nouns are referred to with the neuter pronoun *het* 'it'. This is shown in (1):

(1) Semantic gender in Dutch (examples from Audring 2006)

- a. About *dat boek* 'that book' (neuter, but count noun: masculine pronoun):

Dan moet 'k 'm ook nog niet gaan inleveren'
then must.1SG I him too yet not go.INF return.INF
'Then I shouldn't return it (lit: him) yet.'

- b. About *olijfolie* 'olive oil' (common/feminine, but mass noun: neuter pronoun):

...hoe 't geconserveerd wordt.
how it preserved.PART become.3SG
'...how it is preserved.'

Some varieties, such as most varieties spoken in Belgium, have preserved the traditional three gender system, however. For instance, a number of dialects still distinguish masculine, feminine and neuter nouns, both in the adnominal and in the pronominal domain. But the gender systems in these dialects have nevertheless changed as well: for instance, Geerts (1966) provides several examples of nouns that have changed gender in the course of history. Accordingly, the gender of certain nouns differs from dialect to dialect (see, e.g., Pauwels 1938 and the MAND-atlas). It is not clear to what extent the developments in these dialects compare to the shifts that have taken place in northern varieties and Standard Dutch, and whether any developments in southern gender systems must be explained as a result of contact with Standard Dutch.

This article compares the results of a late 19th century survey on gender in the dialects (Pauwels 1938) with recent data from the Belgian provinces of East and West-Flanders. The article is structured as follows: after a number of methodological preliminaries (section 2), section 3 provides an overview of the most important developments in East and West Flemish dialects. It will be shown that three main tendencies are observed: (1) influence from Standard Dutch; (2) interdialectal influence, more precisely influence from the Brabantic prestige dialects; and (3) resemantisation along a similar pathway as observed in present-day northern varieties of Dutch. Section 3 also discusses the strength with which these three tendencies operate within East and West Flanders, and labels the observed tendencies in terms of the two main types of language change described by Labov (2007), viz. 'diffusion' and 'imperfect transmission'. Section

4 focuses on the role of the parameter 'frequency', since this parameter may provide further support as to the mechanism of change that is being observed in gender change. Section 5 concludes this article.

2. Investigating gender in East and West Flemish dialects

An important source for the study of recent gender developments in Belgian varieties of Dutch is a monograph by Pauwels (1938) in which the results are discussed of, first, a survey on gender in Belgian varieties of Dutch carried out in 1872, and, second, a number of related small-scale investigations from 1895-1927, most of them reference grammars or studies dealing with grammatical gender in one or more dialects. It appears that all Belgian Dutch dialects at that time still distinguished three genders, but there is a lot of variation on the level of the individual items: nouns that are masculine in one dialect may be feminine or neuter elsewhere. For instance, *bos* 'forest' is masculine in some dialects, but neuter in others; *kraag* 'collar' is feminine in some dialects, masculine in others, etc. Some nouns, like *suiker* 'sugar', can even be masculine, feminine, and neuter. For most nouns, the variation is geographically conditioned, and, hence, Pauwels (1938) draws maps showing the areas in which a given noun is masculine, feminine or neuter.

From Pauwels's list, 50 nouns were selected for which gender information was gathered in the Belgian provinces of West and East Flanders, i.e. more or less the western half of the area covered by Pauwels (1938). The questionnaire that was used only takes into account pronominal gender, and it consisted of sentence completion tasks of the type shown in (2): the informants had to fill in a subject pronoun referring to a (bold-faced) noun that was used in a preceding sentence, which did itself not contain any elements marking the gender of the noun (such as a definite article or an inflected adjective).

(2) Example sentence from the 2006 questionnaire

Er is veel **sneeuw** gevallen maar _____ is gesmolten.
There is much **snow** fallen but _____ is melted.
'A lot of **snow** has fallen but in the mean time _____ has melted.'

The questionnaire was sent out to the informants of the Dictionary of Flemish dialects, and 138 of them were returned, from 103 different locations. The informants of the Dictionary of Flemish dialects are all required to be L1 speakers of their local dialects. Since the network was established in the 1970s,

4 Gunther De Vogelaer

nearly all informants are aged 50 or older. As dialects are exclusively spoken varieties in Belgium, written questionnaires are generally not considered the most reliable source for dialectological investigation, but most informants have several years of experience in filling out questionnaires, and the information they provide has proven a reliable source of information (for the methodology of the Dictionary of Flemish dialects, see Van Keymeulen 2003).

In selecting the questionnaire items, mainly nouns were chosen that occur in all dialects under investigation. Nevertheless, in addition to filling in the pronoun, the informants were asked to provide a translation of the relevant noun. All answers in which the translation differed from the word from the example sentence are left out of consideration, since in these cases it cannot be excluded that the informants referred to another word than the one in the example sentence.

In comparing the 2006 data with the maps from Pauwels (1938), it should not be forgotten that the older maps are drawn on the basis on much less data than collected in the present study. For East and West Flanders, Pauwels' maps are based on 16 questionnaires and 11 reference grammars. This may raise problems, since the borders drawn on the maps are not always very precise, and hence it is not always possible to determine to which area a certain sampling point from the 2006 survey belongs. To avoid this problem, only items that show a very robust distribution on Pauwels' maps are selected for the 2006 questionnaire. In addition, for localities for which there is doubt as to the gender of a noun in the old survey, e.g. in transitional zones, the data are left out of consideration.

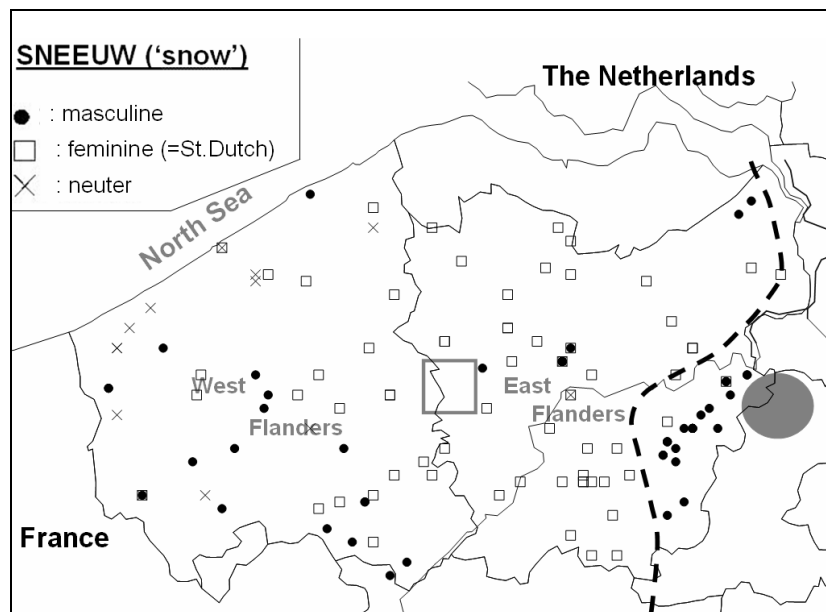
3. The geography of gender change

3.1. *The overall stability of Flemish gender*

Overall, the results of the 2006 questionnaire correspond quite well to grammatical gender in the 19th century, with 64,92% of the answers being inferable from Pauwels's (1938) results. Map 1 shows the results for the noun *sneeuw* 'snow', a noun which is traditionally feminine in most East and West Flemish dialects (cf. the large grey square on the map). In a more eastern zone, *sneeuw* 'snow' is masculine (cf. the large grey dot). The dotted line marks the border between these areas. In the 2006 survey, the relevant question was answered by 135 informants. For 21 of these, no conclusions can be drawn as to the grammatical gender of the relevant noun in their dialects in the beginning of

Geography and frequency in gender change 5

the 20th century, since they live in an area for which Pauwels's data are not fine-grained enough. This means that only 114 of the 135 answers can be taken into account for statistical analysis.¹ 69 of these 114 (or 60,53%) provide the answer that could be expected on the basis of Pauwels (1938). The map shows deviations from traditional gender, even more so in the feminine than in the masculine area, and especially in West Flanders. Of 86 informants from the feminine area, 27 use the masculine pronoun *hij* 'he' to refer to *sneeuw* 'snow' (i.e. a ratio of expected feminines shifting to masculine of 27/86, or 31,4%). Fourteen of the informants use *het* 'it' (a ratio of expected feminines shifting to neuter of 14/86, or 16,3%). Hence the total number of deviations from the traditional feminine gender equals 47,7%, whereas only 14,3% deviations are observed in the masculine area (only 4 of the 28 informants in the 'masculine' area refer to *sneeuw* 'snow' with the feminine *ze* 'she', and none with the neuter *het* 'it').



Map 1. Gender of the pronoun referring to sneeuw 'snow'

¹ The map shows less than 135 sampling points because there are locations for which more than 1 informant is consulted. In some cases these informants provided different answers, which are all mapped.

6 Gunther De Vogelaer

Different factors may play a role in the developments that are observed on map 1. First, it could be expected that standardisation would occur, which in this case would increase the use of the feminine pronoun *ze* 'she'. However, no such increase is observed, which may have to do with the fact that the use of feminine gender for other referents than female persons or animals is on the verge of disappearing in many varieties of Dutch. Second, it is well-known that dialects in Belgium tend to converge with the central, Brabantic dialects, which are spoken in the area to the east of East Flanders. Hence an increase is expected of the use of masculine *hij* 'he'. While this expectation is borne out, it is highly doubtful that this 'Brabantic expansion' explains the West Flemish attestations of masculine *hij* 'he' on the map, since the tendency to converge with Brabantic is known to be much stronger in East Flanders, the area that borders the Brabantic dialect area (cf. Taeldeman 2002:12-15, 2005:33-48). An alternative explanation could be that the masculine and the feminine are being merged in the west, and that the functions of feminine *ze* 'she' are taken over by the masculine *hij* 'he'. Third, Audring (2006) has shown that some varieties of Dutch, such as spoken Standard Dutch, tend to use the neuter pronoun *het* 'it' to refer to mass nouns such as *sneeuw* 'snow', even if these mass nouns are historically masculine or feminine. The map shows that a similar tendency may be at work in West Flanders, where many attestations of neuter *het* 'it' are found.

All in all, it is not easy to explain the developments that are observed on map 1: some tendencies cannot be explained; other developments can be explained in different ways. In a way, this was to be expected: as a property of individual nouns, grammatical gender may undergo all sorts of idiosyncratic developments. However, if one takes into account the developments for a large number of nouns, the diachronic patterns should become clear. Therefore, in the next sections the data for all the items on the 2006 questionnaire will be subjected to statistical analysis, in which the relevance of three factors is investigated: standardisation, Brabantic expansion and semantically-driven reinterpretation of the gender system (as observed by Audring 2006 in northern Standard Dutch).

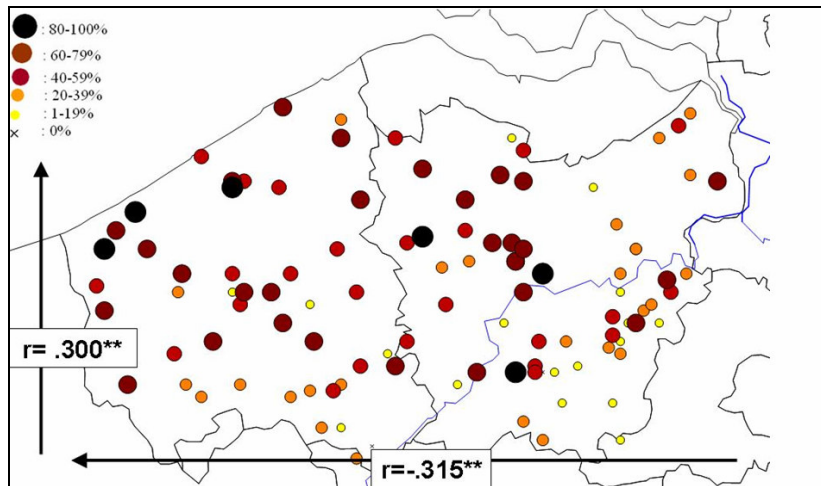
3.2. *Standardisation effects*

Many dialects of Dutch suffer from large-scale dialect loss and levelling (see, e.g., Hoppenbrouwers 1991, Taeldeman 1991), and the Flemish dialects are no exceptions to this, even though they are considered among the most conservative ones in the Dutch language area (Taeldeman 2005:89-102 for East Flanders, Devos & Vandekerckhove 2005:142-148 for West Flanders). The overall stability of the Flemish gender system discussed in section 3.1 implies that the gender

Geography and frequency in gender change 7

system by and large resists these pressures in the direction of the standard language. Nevertheless, standardisation is observed, but its effects are rather complex: words for which grammatical gender differs from Standard Dutch do not always easily adopt Standard Dutch gender. For instance, traditionally masculine nouns that are feminine in Standard Dutch tend not to take over Standard Dutch gender, and vice versa. The most important Standard Dutch influence concerns traditionally masculine and feminine nouns which are neuter in Standard Dutch. In this case, there is a strong tendency to take over the neuter gender: a ratio of 41,9% of the answers show neuter gender (ANOVA; $p < .001$). The most conspicuous examples that are undergoing this shift include *artikel* 'article', for which 80 informants were expected to provide a masculine pronoun, but 74 used the neuter *het* 'it', totalling a ratio of expected masculines shifting to neuter of 92,5%. Similar results of over 70% shifts are obtained for the masculines *bos* 'forest' and *boek* 'book', and for the feminines *feest* 'party' and *dozijn* 'dozen'. In terms of Labov's (2007) distinction between 'diffusion' and 'imperfect transmission', it is obvious that standardisation must be considered an instance of diffusion. Although there are no data available on adnominal gender from the 2006 questionnaire, other sources show that the standardisation effect is not limited to pronominal gender. For instance, the database of the SAND-atlas (Barbiers et al. 2006) contains dialectal equivalents to Standard Dutch sentences containing both *boek* 'book' and *feest* 'party'. In both cases, a few examples surface in the relevant area of the noun combining with neuter adnominal morphology (e.g. *dat boek* 'that boek', *het feest* 'the party').²

² That neuter gender is more easily taken over than feminine and especially masculine gender may be somewhat surprising, since masculine gender is considered default gender in Dutch. But the absence of significant shifts towards the masculine is to a large extent due to the fact that almost no nouns are included in the questionnaire that are neuter in Flemish dialects and masculine in Standard Dutch. Since Pauwels (1938) too provides very few such nouns, it appears as if masculine gender is even more pervasively found in Flemish nouns than in Standard Dutch nouns.



The extent to which standardisation is observed in a given location can be quantified easily, by dividing the number of *het*-attestations for originally non-neuter items by the number of items which are liable to change (note that this number may differ from dialect to dialect, since nouns differ in gender in the dialects under investigation). For instance, for Ieper five non-neuter nouns from the questionnaire are neuter in Standard Dutch, two of which are referred to by the local informant with the neuter pronoun *het* 'it'. This yields a standardisation ratio of 40%. The standardisation ratios for each test location are plotted on map 2. The map also shows correlation coefficients of, on the one hand, the tendency towards standardisation observed in each test location, and, on the other, their geographical location expressed by means of latitude/longitude coordinates. These coordinates determine how many degrees a given location is situated to the east of the Greenwich Meridian (X-coordinate) or to the north of the Equator (Y-coordinate). In this way, it can be detected whether a given change mainly affects the east rather than the west (or vice versa in the case of a negative correlation), or the north rather than the south. In this case, a weak but nevertheless significant correlation is observed between the Y-coordinate and standardisation: the closer a sampling point is situated to the North, i.e. to the border with the Netherlands, the stronger the influence from Standard Dutch. In addition, Standard Dutch influence has been stronger in the west than in the east. Clearly, this is not in line with the results from most sociolinguistic research. Indeed there is agreement in the field that the dialects spoken in West Flanders, a peripheral and probably the most rural province in Dutch-speaking Belgium,

show less standardisation than East Flemish dialects (see, e.g., Devos & Vandekerckhove 2005:142-148; Taeldeman 2005:89-102).

3.3. *Interdialectal influence: 'Brabantic expansion'*

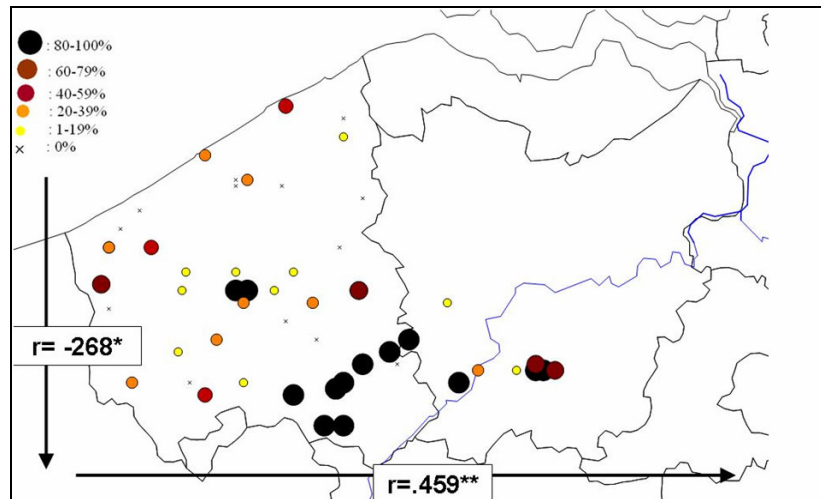
Dutch dialects not only tend to converge with Standard Dutch, but also with each other (see Hinskens 1993 and Vandekerckhove 1993 for many examples from Dutch; cf. Hinskens, Auer & Kerswill 2005:9). For instance, processes of interdialectal influence have caused many geographically restricted dialect variants to be replaced with geographically more widespread variants which need not be part of the standard language, causing the rise of so-called 'regiolects' (cf. Hoppenbrouwers 1991). In Belgium, the most significant form of interdialectal influence is the tendency of central, Brabantic dialect features to diffuse over more peripheral regions such as the provinces of East and West Flanders, a phenomenon known to have been going on for several centuries (Taeldeman 2002:12-15, Devos 2006:45). Recently, this tendency has gained force, since Brabantic dialect features are increasingly found in Belgian varieties of Standard Dutch (Goossens 1970, Taeldeman 2002:8-10). The Brabantic dialects are among the most stable ones in the Dutch language area when it comes to the preservation of the three-gender system. This is illustrated by the fact that, unlike in northern varieties, even loanwords can be assigned feminine gender (e.g., *garage* 'garage', *factuur* 'bill' and *club* 'club'; see Treffers-Daller 1994:123-141; Van Marle 2004).

As for grammatical gender, it is indeed observed that Flemish nouns tend to take over Brabantic gender. Three effects are statistically significant (ANOVA: $p < .05$). Two concern nouns which are traditionally neuter in Flemish dialects, which tend to take over both masculine and feminine gender from the Brabantic dialects (at a ratio of 28,3% and 74,5%, respectively).³ In addition to the traditional neuters shifting gender, originally masculine nouns tend to adopt feminine gender from the Brabantic dialects (at a ratio of 30,1%). Examples from nouns undergoing these shifts include the originally neuter nouns *lak* 'varnish', *marmor* 'marble', *zink* 'zinc', *boek* 'book' and *zerk* 'tombstone', which take over masculine gender, and *olie* 'oil' and *venster* 'window', which take over feminine gender. Originally masculine nouns adopting feminine gender are *meloen* 'melon', *ekster* 'magpie' and *limonade* 'lemonade'. As with standardisation, it is again obvious that diffusion is at work. Despite the fact that the same mechanism

³ The ratio for neuters shifting to feminine is extremely high (74,5%) due to the fact that only two nouns are taken into account. Here a more elaborate survey including more nouns in the relevant category will undoubtedly yield a lower ratio.

of change underlies both standardisation and Brabantian influence, the influence from Brabantian expansion seems to be less strong than the influence of standardisation. This makes it hard to determine whether Brabantian influence remains limited to the categories of nouns for which the present study finds significant results. Indeed it is not immediately clear why precisely these three categories of nouns would be sensitive to Brabantian influence. For some categories the absence of significant results may be due to data sparsity: sometimes there are simply too few relevant items to yield significant results. For instance, there are very few traditionally neuter nouns in the list which are feminine or neuter in Brabantian. Also, the questionnaire did not contain items which are masculine in a substantial part of East or West Flanders, but neuter in Brabantian.

The ratios with which Brabantian expansion is observed in the test locations, are plotted on map 3. No data are available for the larger part of East Flanders, as many East Flemish dialects do not show any differences with Brabantian as regards the grammatical gender of the questionnaire items (also, no ratios are shown that are calculated on the basis of just one token). The strongest correlation is the one between the X-coordinate and Brabantian influence, which indeed increases the closer one gets to the Brabantian dialect region. In addition, the Brabantian influence is more strongly felt in the south of the area than in the north. This effect is entirely caused by the fact that the south east of West Flanders appears to have undergone stronger Brabantian influence than the rest of the province (including the south west).



Map 3. Brabantian expansion, i.e. neuters shifting to masculine or feminine parallel with Brabantian dialects

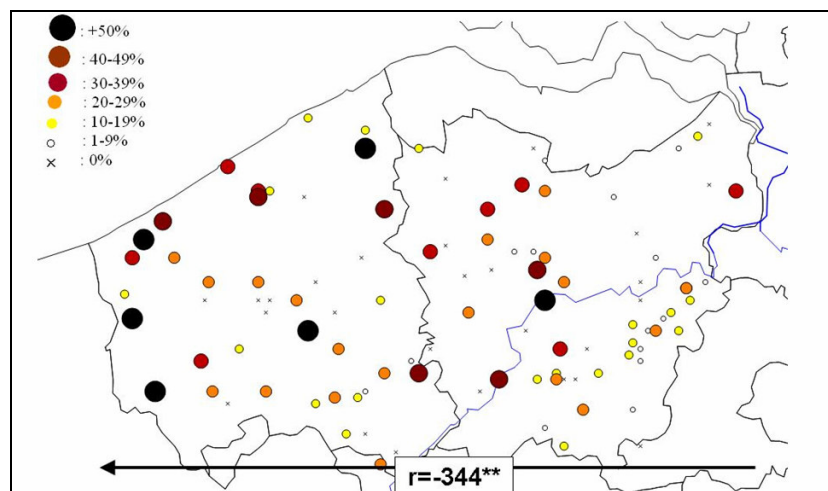
As was the case for the standardisation effects, the results of the 2006 questionnaire do not provide any information concerning shifts in adnominal gender due to Brabantian expansion, but there are other recent data for one of the items under investigation. The MAND-atlas includes a map with the article for the noun *ekster* ‘magpie’ (map 70b), which, compared to the map in Pauwels (1938), shows that in the adnominal domain too the use of masculine gender has decreased dramatically. This development is completely in line with the developments in pronominal gender, and hence it appears that Brabantian expansion affects both pronominal and adnominal gender.

3.4. Resemantisation?

In present-day spoken Standard Dutch, mass nouns are almost without exception referred to with the neuter pronoun *het* ‘it’, count nouns with the masculine *hij* ‘he’ (Audring 2006). The feminine pronoun *ze* ‘she’ is only used to refer to female humans and animals. Hence the traditional grammatical gender system in pronouns is given up in favour of a semantic system. At first sight the Flemish dialects show no tendency towards such a resemanitisation. However, since the nouns in the sample show strong convergence with Standard Dutch neuter gender, a tendency to use neuter *het* ‘it’ for mass nouns could be masked by a much stronger tendency in all nouns to converge with Standard Dutch. If all

nouns are left out of consideration that are neuter in Standard Dutch (both count and mass nouns), it appears that in the Flemish dialects there is indeed a statistically significant effect to use the neuter pronoun *het* 'it' to refer to mass nouns, whether they are grammatically neuter or not: the ratio of *het* 'it' answers is higher for non-neuter mass nouns than for count nouns (19,7% vs. 7,1%, respectively; ANOVA: $p < .01$). Examples of mass nouns from the questionnaire are *achterdocht* 'suspicion', *pels* 'fur', *olie* 'oil', and *kalk* 'lime'. Quite surprisingly, even in cases where no Standard Dutch influence can be operating, no tendency is observed to use the masculine *hij* 'he' for all count nouns. Thus the ongoing change in West and East Flanders is not completely parallel to Audring's (2006) scenario for spoken northern Dutch.

Unlike the other tendencies under investigation, resemantisation seems to affect pronominal gender only (cf. similar tendencies in other Germanic varieties, as described by Siemund 2002 and Audring 2006). Map 4 shows the correlation between geographical location and the tendency towards resemantisation of pronominal gender.



Map 4. Resemantisation of pronominal gender: *het* 'it' for [mass nouns]

Resemantisation appears stronger in the west than in the east. No differences are observed between the north and the south here. This suggests that the resemantisation of pronominal gender has not diffused from Standard Dutch, for two reasons: first, the lack of a correlation between resemantisation and the Y-coordinate constitutes a clear discrepancy with the geographical pattern observed

for the ‘non-neuter to neuter’-shifts under Standard Dutch pressure. And second, intensive dialect geographical research in Flanders has shown that a clear north-south orientation is typical for dialect borders predating the rise of Standard Dutch (Goossens 1996, Taeldeman 2005:78-80, Devos 2006:37-41). While the strong tendency towards resemantisation seems to contradict the general characterisation of the western dialects as conservative, it has been observed before that, with respect to grammatical gender, West Flemish gender has moved further away from the original system than East Flemish (or Brabantic, for that matter). This is most obvious in adnominal gender: maps 67a and 69a from the MAND-atlas show, for instance, that most West Flemish dialects pattern like Standard Dutch in that they no longer have a morphologically distinct masculine indefinite article, whereas all East Flemish and Brabantic dialects still distinguish between masculine *ne(n)(man)* ‘a (man)’ and feminine *een (vrouw)* ‘a (woman)’. Hence it appears as if a development in West Flemish is witnessed that is not caused by contact with Standard Dutch, but which is nevertheless to a large extent parallel, and which appears to be triggered by the same phenomenon, viz. the loss of gender marking morphology. Hence it presents a likely case of, in Labov’s (2007) terms, change through imperfect transmission. The conclusion that resemantisation in Flemish dialects takes place through imperfect transmission is supported by the fact that the phenomenon has also emerged independently in many other Germanic dialects (see Siemund 2002, 2008).

Tentatively, the fact that resemantisation is stronger in West Flanders may also provide an explanation for the larger degree of standardisation that is observed in that province. Note that the shift of non-neuter nouns to neuter gender cannot be attributed to transmission, since in that case the shift would affect all nouns, not only those that are neuter in Standard Dutch. But the fact that West Flemish pronominal gender is undergoing large-scale restructuring may have made the system more susceptible to Standard Dutch influence, in two ways: first, due to the stronger resemantisation of pronominal gender speakers of West Flemish dialects witness variation in the gender assignment for certain nouns, which may contribute to an overall uncertainty with respect to grammatical gender (cf. Trudgill 1986:10-11). And second, due to the loss of gender-marking morphology the language input provides these West Flemish dialect speakers with less morphological clues to rely on in determining the gender of a noun, which is another factor that may facilitate change. Quite evidently, this explanation needs to be tested against further data from West Flemish.

4. Mechanisms of gender change, and frequency

Section 3 showed that three main shifts are going on in current Flemish dialects: (1) standardisation, typically observed in originally non-neuter nouns shifting to neuter gender under pressure of Standard Dutch; (2) Brabantic influence, which is smaller than Standard Dutch influence, and visible especially in originally neuter nouns shifting to masculine or feminine gender; and (3) resemantisation of pronominal gender, in the sense that a trend is observed to use the neuter pronoun *het* ‘it’ to refer to all mass nouns. The third tendency seems to be of a different kind than the other two, since it cannot be explained as a result of contact with another variety: in Labov’s (2007) terms, it presents a case of imperfect transmission rather than diffusion. The main argument to consider resemantisation a result of imperfect transmission was geographical; this section adduces frequency data in support of the analysis in section 3. The frequency data are taken from two different sources. The first source, the frequency lists of the Corpus of Spoken Dutch (CGN), provides very straightforward frequency data. The scores for the questionnaire items in the list for the Belgian part of the CGN range from 0 (for *dozijn* ‘dozen’ and *zink* ‘zinc’) to 1005 (for *boek* ‘book’). The second source is the Dutch target vocabulary list for 6-year-old children (Schaerlakens, Kohnstamm & Lejaegere 1999). This list does not provide frequency data, but the proportion of investigated caretakers that considered a given word to be known by most 6-year-olds. Given that the frequency with which children are exposed to certain words is an important factor in the speed with which these words are acquired (cf. Goodman, Dale & Yi 2008), the scores on the target vocabulary list can be assumed to relate to frequency. In addition, the target vocabulary list has the advantage that it captures the frequency with which children are exposed to the relevant words during language acquisition, which is especially important given that one of the main mechanisms of language change, viz. imperfect transmission, considers the acquisition process as the locus of language change.

In order to investigate the role of frequency in the Corpus of Spoken Dutch, for each word on the questionnaire the strength was calculated with which it is affected by each of the investigated tendencies. For instance, for the noun *bos* ‘forest’ 92 answers are available from regions where *bos* is traditionally a masculine noun, whereas it is neuter in Standard Dutch. In 74 cases, the neuter pronoun *het* ‘it’ was given as an answer. This means that *bos* ‘forest’ shows a standardisation ratio of 74/92 or 80%. This figure can then be correlated with the frequency data. Frequency only appears to have a significant effect on standardisation, with $r = .627$. Brabantic influence and resemantisation show no

frequency effect. Hence it can be concluded that standardisation, at least in gender change, mainly affects highly frequent items. This may in itself be considered a remarkable finding, as the role of frequency in standardisation processes is far from unambiguous. For instance, Rys (2007:236-240) shows that highly frequent dialect sounds resist standardisation better than less frequent ones. The difference may be explained in terms of salience, as advocated, for instance, by Trudgill (1986): since sounds are much more salient dialect features than the lexical gender of a noun, dialect speakers will not easily allow these features in their language use.⁴

For the scores on the target vocabulary list, another procedure was followed:⁵ the questionnaire items were divided in categories, the answers for the nouns were pooled per category, and gamma coefficients were calculated. The only meaningful result is obtained for resemantisation of non-neuter nouns, viz. the unknown items *achterdocht* ‘suspicion’, *jenever* ‘gin’, *kalk* ‘limestone’ (not on the list) and *lak* ‘polish’ (which has a score of 37), the well-known items *olie* ‘oil’, *pels* ‘fur’ and *peper* ‘pepper’ (with a score between 75 and 90), and *limonade* ‘lemonade’, *sneeuw* ‘snow’, *spinazie* ‘spinach’ and *suiker* ‘sugar’ from the unanimity list (i.e. a score of 90 or higher). Resemantisation correlates negatively with frequency, i.e. unknown items are affected much stronger by resemantisation than well-known items and items from the unanimity list (gamma equals 0,273; both extreme values in the 95% confidence interval are positive, meaning that the effect is robust). The data are shown in the table.

Table. Resemantisation and frequency

	<i>het</i> ‘it’	<i>hij</i> ‘he’ or <i>ze</i> ‘she’
<i>unknown items:</i>	75	239
<i>well-known items:</i>	44	214
<i>items from unanimity list:</i>	49	347
	gamma = 0,273	
	(95% CI: 0,145<gamma<0,402)	

⁴ Note that the informants for this study are L1 speakers of their dialect, who are reporting about the use of their dialect. The influence of ‘salience’ will probably be different in other circumstances, e.g. in cases where a dialect speaker tries to accommodate towards the standard.

⁵ Given the nature of the data, it is much more logical to operationalise them as an ordinal variable rather than as a ratio variable. The reason for this is that the figures on the list are highly skewed: since the target vocabulary list is mainly designed to provide a list of words which are almost unanimously agreed on as belonging to a 6-year-old’s vocabulary, many questionnaire nouns are not included on the list (and hence score 0), and many others score 90 or more. While this does not necessarily invalidate the calculation of an r-value, it renders any r-value incomparable to the scores calculated with the CGN frequency lists, and hence it is preferable to opt for another statistical technique.

From this, two things become clear: first, resemantisation affects other items than standardisation. And second, the fact that frequency data from the target vocabulary list yield clearer results than frequency data from the CGN, adds support to the idea that resemantisation relates to the language acquisition process, providing an extra argument to consider it change through ‘imperfect transmission’.

5. Conclusions

Like the northern Standard Dutch system, the gender system in present-day southern Dutch dialects is undergoing change. At least in the provinces of East and West Flanders, the following three tendencies are observed: (1) originally non-neuter words are shifting to neuter gender under the influence of Standard Dutch; (2) especially in East Flanders nouns tend to adopt the gender used in the Brabantic prestige dialects; and (3) a tendency towards resemantisation of pronominal gender is witnessed, mainly in West Flanders (cf. Audring 2006 for (northern) Standard Dutch). The first two developments involve both adnominal and pronominal gender, the latter is restricted to pronominal gender. The tendencies differ with respect to the underlying mechanism of change too (cf. Labov 2007): the first two developments are obviously the result of diffusion. As for the latter tendency, geographical evidence and frequency data are presented for the hypothesis that it constitutes a spontaneous development in West Flanders, exemplifying imperfect transmission.

References

- Audring, J. (2006) ‘Pronominal gender in spoken Dutch’. *Journal of Germanic Linguistics* 18, 85-116.
- Barbiers, S. et al (2006) *Dynamische Syntactische Atlas van de Nederlandse Dialecten* (DynaSAND; <http://www.meertens.knaw.nl/sand/>). Meertens Instituut, Amsterdam.
- Devos, M. (2006) ‘Genese en structuur van het Vlaamse dialectlandschap.’ In J. De Caluwe & M. Devos, eds, *Structuren in talige variatie in Vlaanderen*. Academia Press, Gent, 35-62.
- Devos, M. & Vandekerckhove, R. (2005) *West-Vlaams*. Lannoo, Tielt.
- Geerts, G. (1966) *Genus en geslacht in de Gouden Eeuw*. Belgisch Interuniversitair Centrum voor Neerlandistiek, Brussel.
- Goodman, J., Dale, P. & Li, P. (2008) ‘Does frequency count? Parental input and the acquisition of vocabulary’. *Journal of Child Language* 35, 515-531.
- Goossens, J. (1970) ‘Belgisch beschaafd Nederlands’ en Brabantse expansie’. *De Nieuwe Taalgids* (Van Haeringnummer - theme issue), 54-70.

- Goossens, J. (1996) 'Hoe is het Nederlands tot stand gekomen?'. *Neerlandica Wratislaviensia* 9, 63-78.
- Hinskens, F. (1993) 'Dialectnivellering en regiolectvorming. Bevindingen en beschouwingen'. In F. Hinskens, C. Hoppenbrouwers & J. Taeldeman, eds, *Dialectverlies en regiolectvorming*, Taal & Tongval themanummer 6, 40-61.
- Hinskens, F., Auer, P. & Kerswill, P. (2005) 'The study of dialect convergence and divergence: conceptual and methodological considerations'. In P. Auer, F. Hinskens & P. Kerswill, eds, *Dialect change: convergence and divergence in European languages*. Cambridge University Press, Cambridge, 1-48.
- Hoppenbrouwers, C. (1991) *Het regiolect. Van dialect tot Algemeen Nederlands*. Coutinho, Muiderberg.
- Labov, W. (2007) 'Transmission and diffusion'. *Language* 83, 344-387.
- MAND = De Schutter, G., van den Berg, B., Goeman, T. & de Jong, T. (2005) *Morphological atlas of the Dutch dialects. Volume 1*. Amsterdam University Press, Amsterdam.
- Pauwels, J.L. (1938) *Bijdrage tot de kennis van het geslacht der substantieven in Zuid-Nederland*. Michiels, Tongeren.
- Rys, K. (2007) *Second dialect acquisition: a study into the acquisition of the phonology of the Maldegem dialect by children and adolescents*. Dissertation, Ghent University.
- Schaerlakens, A., Kohnstamm, D. & Lejaegere, M. (1999) *Streeflijst woordenschat voor zesjarigen* [third, revised edition]. Swets & Zeitlinger, Lisse.
- Siemund, P. (2002) 'Mass versus count: Pronominal gender in regional varieties of Germanic languages'. *Sprachtypologie und Universalienforschung* (STUF) 55, 213-233.
- Siemund, P. (2008) *Pronominal Gender in English: A Study of English Varieties from a Cross-Linguistic Perspective*. Routledge, London.
- Taeldeman, J. (1991) 'Dialect in Vlaanderen'. In H. Cromptvoets & A. Dams, eds, *Kroesels op de bozzem (= Het dialectenboek 1)*. Stichting Nederlandse Dialecten, Waalre, 34-52.
- Taeldeman, J. (2002) 'Brabants buiten Brabant'. In W. Wellekens, L. Pletinckx & M. Ooms, eds, *Brabantse dialecten cultureel erfgoed*. Stichting Brabantse Dialecten, Leuven, 7-22.
- Taeldeman, J. (2005) *Oost-Vlaams*. Lannoo, Tielt.
- Treffers-Daller, J. (1994) *Mixing two languages: French-Dutch contact in a comparative perspective*. Mouton de Gruyter, Berlin.
- Trudgill, P. (1986) *Dialects in Contact*. Blackwell, Oxford & New York.
- Vandekerckhove, R. (1993) 'Dialectverlies in West-Vlaanderen? De vitaliteit van het Deerlijkse dialect'. In F. Hinskens, C. Hoppenbrouwers & J. Taeldeman, eds, *Dialectverlies en regiolectvorming*, Taal & Tongval themanummer 6, 120-135.
- Vandekerckhove, R. (2000) *Structurele en sociale aspecten van dialectverandering*. Koninklijke Academie voor Nederlandse Taal- en Letterkunde, Gent
- Van Keymeulen, J. (2003) 'Compiling a dictionary of an unwritten language. A non corpus-based approach'. *Lexikos* 13, 183-205.
- Van Marle, J. (2004) 'Nogmaals het genus van Franse leenwoorden'. In J. De Caluwe, G. De Schutter, M. Devos & J. Van Keymeulen, eds, *Schatbewaarder van de taal. Liber amicorum Johan Taeldeman*. Academia Press, Gent, 917-926.