The reflection of historical language contact in present-day Dutch and Swedish

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Abstract

In the present study we quantitatively examined similarly constructed samples of formal spoken Swedish and Dutch in order to compare the composition of the lexicons. Results showed that Swedish has many more loans than Dutch, namely 44.4% against 27.9%. Within the Swedish loans there is a large compartment of Low German (38.7%), whereas most loans in Dutch have a French origin (63.8%). The differences in terms of the number and distribution of loanwords between the lexical profiles of Swedish and Dutch appear to be stable, as they were attested both in the present study and in previous studies. They can be attributed to differences in the linguistic distances between source and borrowing languages and to differences in the intensity of the contacts.

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1. Introduction

Globalization can literally be defined as the process by which local or regional things and phenomena are transformed into global ones. Globalization may affect the world in a large number of ways, e.g. industrial, technical, economic, political, ecological, social, and linguistic. At present, linguistic globalization is particularly evident in the all-pervasive influence of English on the worlds' languages. However, linguistic globalization has occurred in previous centuries as well. In fact, according to Thomason (2001: 8) "there is no evidence that any languages have developed in total isolation from other languages". A few pages further she contends "language contact is the norm, not the exception" (p.10).

It is well known that language contact may result in linguistic changes at all levels: phonetic, phonological, morphological, syntactical, prosodic and lexical, depending, among other things, on the intensity of the contact and the degree of relatedness of the languages involved. In this article we will focus on the lexical level, which is generally assumed to be the level that is most easily influenced (Thomason

2001: 69). We were interested to know to what extent different language contact histories may lead to differences in the composition of the lexicon of present-day languages. We opted for comparing Swedish and Dutch. These two Germanic languages share many stems due to their common origin in Proto-Germanic. So, originally their lexicons were very similar. However, the two languages have diverged considerably, as a consequence of both language internal and language external factors, in particular language contact. The nature of these contacts is well documented. In the course of time, Dutch and Swedish have been in contact with the same languages, particularly Low and High German, Latin and French, but the intensity and duration of these contacts differed considerably (see Section 2). It is not our intention to throw new light on these historical developments. Our research question is: How are the similarities and differences in language contact in the past reflected in the Dutch and Swedish languages as they are used at present?

The few studies that have assessed the composition of the present-day Dutch and Swedish lexicons in a quantitative way were exclusively based on newspaper texts (see Section 3). Moreover, different methodologies and different types of texts were used, which makes it difficult to compare the results. For our contrastive investigation, we took great care to ensure that the databases for the two languages were constructed in exactly the same manner. Both databases include prepared speeches and spontaneous dialogues that can be characterized as formal. All material originates from meetings held in the European Parliament in the first months of 2000, either in Dutch or in Swedish. In this way, the content and style of the speech material was kept constant. In view of the setting (monologues and dialogues for a large public) and topics (politics, economics, administration), the style can be characterized

as formal. Moreover, for both Dutch and Swedish we only looked at the most frequent words, as the analysis of frequent words will be less prone to chance fluctuation than the analysis of infrequent words. Finally, the same procedure of word selection and coding was applied to both languages (see Section 4). All this taken together, we provide a quantitative study based on a large and reliable data set that is suitable for a valid comparison of the two languages involved.

Our research questions can be formulated as follows:

(1) What are the proportions of inherited words and loanwords in contemporary Dutch and Swedish?
(2) What are the origins of the loanwords in the two languages?
(3) Which historical prerequisites, such as language contact situation or linguistic distance, can help to explain the differences between the lexical profiles?

2. Historical background

The histories of loanwords in Dutch and Swedish reveal similarities as well as differences.[1] In the early Middle Ages, both languages borrowed many Latin and

[1] For the history of loans in Dutch, cf. e.g. van der Sijs (2005), for Swedish cf. Edlund & Hene (2004).

some Greek words as part of Christianization. Throughout the Middle Ages, Latin remained influential because of its leading role in the church and in the sciences.

In the late Middle Ages, both the Swedish and Dutch dialects had intensive contacts with Low German. This was the language of the Hanseatic League, which constituted a strong economic power. The Hanseatic merchants, who were located in Northern Germany (mainly Lübeck and Hamburg), built up a trade network covering all of Northern Europe. As a consequence of the closer relationship between West Germanic Dutch and Low German, the dialects which would later constitute the basis of Dutch shared many words with Low German. The dialect contacts in the Hanseatic era may have changed the frequency of use of some native words, but this did not lead to intense borrowing. In contrast, North Germanic Swedish, with fewer parallels in the lexicon, was altered by the Low German influence, which is evident from a large number of loanwords.

Already in the early medieval period the Dutch dialects were strongly influenced by French (Van der Sijs 1996: 134). This can be inferred from the great number of loans that go back to Old French. Examples are *vijg* 'fig' from O.Fr. *figue*, *kussen* 'pillow' from O.Fr. *cussin* or *coissin*, *prei* 'leaks' from O.Fr. *porée*, *aalmoes* 'alms' from O.Fr. *almosne*, *toren* 'tower' from O.Fr. *tur* and *fel* 'fierce' from O.Fr. *fel*. At this point of time, the centre of economic power in the Dutch-speaking dialect area was located in the Southern Flemish part, which was strongly influenced, both economically and politically, by the neighboring French-speaking area. The influence of French on Swedish started much later, in the seventeenth and eighteenth centuries. In both Dutch and Swedish the dominant position of French remained stable until the nineteenth century. The upper classes were bilingual, and used many French words in

their native language. As their manner of speaking had prestige, the French words were adopted by the middle and lower classes, and thus got incorporated into the general language (Van der Sijs 1996: 139).

The standardization of the West and North European written languages started in the sixteenth century. With the translation of the Luther bible from High German into Dutch in the first half of the sixteenth century and with a considerable number of Germans living in the Dutch language area, High German gained influence on Dutch. From the time of the reformation and the Thirty Years' War (1618-1648) onwards, a comparable development took place in Swedish. In the nineteenth century, High German influence was at its top, especially in the domains of science, industry and trade. In the twentieth century, and especially after the Second World War, English words started to be adopted in Dutch and Swedish, especially within the domains of industrialization, transport, technology and sports. In fact, English is now almost the sole provider of loanwords.

In contrast to Swedish, the Dutch language has (partly) been shaped by its colonial history, specifically in Indonesia. This influence was not as strong, however, as that of the European languages mentioned above.

In Figure 1 we present a schematized overview of the intensity and duration of the language contacts for Dutch and Swedish. Low and High German are represented by the same line. Low German contacts mainly took place in the Middle Ages (before 1550), whereas High German contacts mainly occurred from early modern times (after 1550). The two contact situations can thus easily be distinguished. The contacts with Low German-speaking Hanseatic merchants from Northern Germany involved

the entire population in the neighboring countries. The use of High German, in contrast, was largely restricted to the court and institutions of higher education. Moreover, whereas the contact with Low German was mainly established via the spoken language, the contact with High German took place mainly via the written channel of communication (cf. Braunmüller 2004: 23). This is why we consider the former to have been more pervasive, affecting larger portions of the population than the latter. The Dutch and Swedish contacts with Low and High German were comparable in intensity.

The contact between Dutch and French was more intensive than that between Swedish and French. French was only a court language in Sweden, whereas it was a high prestige neighboring language of the Dutch language area. The duration of intensive contact between Dutch and French was much longer than between Swedish and French, since it started already in the Middle Ages. For Dutch, the contact with French was intensive on the written as well as on the spoken level, and for large parts of the population. In Swedish, by contrast, the contact was mainly written. The use of spoken French was restricted to a small minority, specifically the influential, highly educated parts of the population.

Both Dutch and Swedish had contact with Latin. In both languages, this contact took place on the written level and was therefore only accessible to a small part of the society for a long period of time. The intensity of this language contact therefore seems comparable for Dutch and Swedish, as indicated in Figure 1.

Figure 1 here

3. Previous investigations

Van der Sijs (1996: 65) presents a small exploratory study of the first four pages of *NRC Handelsblad* (one of the major daily newspapers in the Netherlands) of April 7, 1994, totaling 11,872 words. After (1) removing personal and geographic names, (2) collapsing conjugated verb forms, and (3) splitting up compounds, she retained 2,144 different lexemes. 69.3% of these were inherited words, dating back to the time when the Germanic languages still formed a unity, and 30.7% were loanwords. Apparently, Van der Sijs is quite impressed by the high number of loans, for she states that "Dutch has received, and is still receiving, loanwords warmly and hospitably" (our translation). The large majority of the loans in the *NRC*-sample have a Latin, French, Italian or Spanish origin (82.0%). High and Low German contributed 6.8% of the loans and English 7.4%. The few remaining loans, totaling 3.7%, are from Greek, Arabic, Hebrew, Turkish and Celtic.

Gellerstam (1973) made an analysis of the 6,000 most frequent word forms found in a Swedish frequency dictionary (Allén 1970). This dictionary is based on one million words from five different Swedish newspapers from 1970. 42.2% of the words in the texts were inherited words, whereas 47.2% consisted of loanwords. The rest were words of unknown origin (1.6%) or words from word classes which Gellerstam excluded from his analysis, i.e. names, numbers etc. (9.1%). Most loans had a High or Low German (51.1%) or a Latin/Greek (43.0%) origin. Only few loans originated from French (2.3%) or English (0.8%) or other languages (2.8%).

A comparison of the data reported for Dutch by Van der Sijs (1996) and for Swedish by Gellerstam (1973) suggests that the Swedish lexicon contains many more

loans than Dutch (47.2% versus 30.7%) and that the extent to which different languages have contributed to the lexicons of the two languages differs. Swedish appears to have borrowed more from High and Low German than Dutch has (51.1% versus 6.8% of the loanwords), whereas Dutch appears to have borrowed more from Romance languages than Swedish (82.0% versus less than 45.3% of the loanwords). However, this conclusion can only be tentative, as the two samples of newspaper texts differ in several respects. The Dutch database is small and a mixed sample of frequent and infrequent words, whereas the Swedish database is large and restricted to high-frequency words. Moreover, the Dutch database comprised lexemes (with compounds broken up into their constituent elements), whereas the Swedish sample is based upon word forms. Moreover, there is a time lapse of more than twenty years between the two samples.

4. Method

4.1. *Material*

For our investigation we made use of the so-called *Europarl* corpus, which can be downloaded from the internet.[2] This is a parallel corpus that is available for eleven European Community languages, including Swedish and Dutch. Each language is represented by approximately 28 million words. The corpus consists of monologues and dialogues by speakers and chairpersons, collected during meetings in the European Parliament. Both the original speech and the simultaneous translations by

[2] http://people.csail.mit.edu/koehn/publications/europarl/

the interpreters into the various languages are included. In this way, the same texts can be selected. This is important for our purpose, since we wanted to compare the lexical profiles of Dutch and Swedish keeping subject matter and style constant. For the present study, we selected all the words from the meetings that were held between January 17 and March 17, 2000 for either language, which sums up to roughly one million words per language.

For our investigation we used the 1,500 most frequent words in the one-million-word databases of each of the two languages. The frequency data were gathered for lexemes rather than word forms. This means that the frequencies of, for example, *huis* 'house' and *huizen* 'houses' were added together. In the frequency database, the lexeme is represented by the singular form *huis.* Verbs are represented by the infinitive forms and adjectives by the undeclined form. In the *Europarl* corpus, the Dutch words had already been lemmatized. The Swedish words we lemmatized ourselves by means of The Granska tagger from The Royal Institute of Technology in Sweden.[3] Out of the 1,500 most frequent words we removed all personal names, geographical references and interjections. Compounds constitute a problem, as they may contain words with different etymologies. This is why we split up all transparent compounds into their simple stems. In this way each part could be categorized separately. Examples of such compounds in Dutch are *badkamer* 'bath room' and *vrijdagavond* 'Friday night'. Swedish examples are *fredsprocess* 'peace process' and *arbetsgrupp* 'working group'. In accordance with the procedure adopted by Van der Sijs (1996, see Section 3), compounds with a preposition as the first element were not

[3] The Granska tagger is available for download online via http://www.csc.kth.se/tcs/humanlang/tools.html (accessed December 11, 2006).

split up (e.g. Dutch *opbellen* 'call' and Swedish *avsluta* 'finish'). Eventually 1,400 Dutch and 1,418 Swedish lexemes remained for further analysis.

4.2. *Coding*

Each word was given codes that contained the following information:[4]

(1) Inherited word or loanword

(2) For loanwords: language from which it has been borrowed directly

For Dutch, the etymological information in (1) and (2) was taken from Van der Veen & Van der Sijs (1997). If the information was not found there, Van der Sijs (1996) was consulted. The Swedish information was found in Wessén (1960) and Hellquist (1980).

5. Results and interpretation

5.1. *The proportion of inherited words and loanwords*

In Figure 2, the percentages of inherited words and loanwords are shown for Dutch and for Swedish. In Figure 3, the percentages of loanwords in our investigation are

[4] The following information was added as well, but not used in the present investigation: original language, year of introduction into the language, word class, pronunciation, word length, cognate/non-cognate.

compared with the percentages reported in previous investigations. The percentage of loanwords in Dutch (27.9%) is similar to the percentage which Van der Sijs (1996) found in a small newspaper corpus from 1994 (30.7%). Also the percentage of Swedish loanwords (44.4%) is similar to the percentage of loanwords found in the previous investigation by Gellerstam (1973) in a newspaper corpus (47.2%). So for both languages the distribution of inherited words and loanwords is almost identical in two types of formal speech, namely written language in newspapers and monologues and dialogues from the European parliament. Apparently, the composition of the present-day Dutch and Swedish lexicons is very stable in this respect. Both the previous studies and our own study show that Swedish has more loanwords, and consequently fewer inherited words, than Dutch. To gain insight into the nature of this difference, we looked at the quantitative contribution of the source languages in closer detail.

Figure 2 here

Figure 3 here

5.2. *The contribution of different languages and the relation with language contact*

In Figure 4, the origin of the loanwords in Dutch and Swedish is broken down for source language. Two differences stand out. First, Swedish has a large percentage of Low German loans (38.7%) whereas Dutch has none. Second, Dutch has many more

French loanwords (63.8%) than Swedish (14.6%). The other differences are much smaller. For example, Swedish has slightly more Latin and Greek loans than Dutch (differences of 2.6% and 4.3%, respectively). The number of High German loans is higher in Swedish as well (a difference of 5.1%).

Figure 4 here

Let us at first take a look at the German loans. In Section 2, we reported that both language communities underwent considerable influence of Low German due to the intense contacts with the Hanseatic tradesmen in the Middle Ages. According to our results, however, this parallel contact situation did not result in equal amounts of lexical borrowing. While in the Swedish sample Low German constitutes the largest group of loans (38.7%), Dutch has no Low German words, or at the most one. In fact, of the 36 Dutch words with a German origin, 35 are attributed unambiguously to High German, whereas the precise origin of one word, namely *grens* 'border', is unclear. It could either go back to the Low German *grenize* or to the High German *grenze*.

The difference between the numbers of Low German loanwords in the two languages can be explained when language distances are taken into account. While Middle Swedish, as a North Germanic language, already diverged considerably, structurally as well as lexically, from Middle Low German, Middle Dutch and Middle Low German were part of the same dialect continuum, where mutual intelligibility was highly probable (Goossens 2000). This holds for the grammar as well as for the lexicon. As Dutch and Low German were so similar, there was little room for borrowing. As we pointed out in Section 2, the intense dialect contact is likely to have

changed the frequency of single words that were part of both the Low German and Dutch vocabularies. These words are often unidentifiable, though. We are also confronted with the problem that it is difficult to establish the etymology of some words from the available sources of Dutch language history. When a word is found in Dutch as well as in Low German and High German documents from the Middle Ages, it is highly probable that this word is originally a West Germanic word. It cannot be completely excluded, however, that it was introduced to one of the regions only later as a loan. Due to these difficulties, the true origin of many loans from Low German may be concealed in Dutch because we interpret them incorrectly as common West Germanic: "The agreement between Low German and Dutch sometimes makes it difficult to decide whether a word is borrowed or related" (Van der Sijs 1996: 231; our translation).

The contact situation in Sweden was one of structurally related languages as well. Braunmüller (1995) even assumes that semi-communication, i.e. a situation where languages are so alike that their speakers can communicate each using their own language, may have been possible between Scandinavians and Low Germans at this point of time. Nevertheless, the lexical differences between Middle Swedish and Middle Low German were much larger than between Middle Dutch and Middle Low German. This makes it easier to identify Low German loans in modern Swedish.

The high number of Low German loans in our Swedish database can also partly be explained by the loan of derivations: Through prefixation in Low German, the same roots can appear in different lexemes, which were then borrowed into Swedish – like the root *sluta* in *ansluta* 'connect', *avsluta* 'finish', and *besluta* 'decide'. Of the 69 Swedish verb stems of Low German origin in our database, only 55 bear different

roots. As Diercks (1995) has shown, affixes of this kind have even become modestly productive in Swedish.

Swedish has fewer High German (14.3%) than Low German loans (39%), but still more than Dutch (9.2%). This difference can be attributed, at least partly, to the same factor that we mentioned above to explain the differences for Low German, namely the larger linguistic distance between Swedish and Low German than between Dutch and Low German. Moreover, it should be noted that the High German influence, which mainly took place in the seventeenth and nineteenth centuries, was less intense than that of Low German in Swedish.

With respect to French and Latin loans, the differences between Dutch and Swedish cannot be attributed to the same linguistic and historical factors as for the High and Low German loans. The contact with French was more intense in the directly bordering Dutch-speaking area over a much longer period (from the early Middle Ages on) than in the non-bordering Swedish-speaking area, where French words mostly entered in the high-prestige times of French as a court language in the seventeenth and eighteenth centuries. The long-lasting contact situation of Dutch resulted in a considerably larger number of loanwords (63.8%) compared to Swedish (14.6%).

The long-term language contact with French brings about some methodological problems for determining Latin loans in Dutch. In Dutch, many Latin words were not borrowed directly but via French. Direct borrowing from Latin was more frequent in Swedish. As our data pertain to the direct loan-giving language, Latin words which were imported via French were counted as loans from French. For example, a loan like Dutch *civiel* / Swedish *civil* counts as a French loan (of Latin origin) in Dutch,

whereas it was categorized as a Latin loan in Swedish. The main cause of the higher number of Latin loans in Swedish is, therefore, the route along which borrowing took place. It should also be noted that in many cases it cannot be established whether a Latin loan was adopted directly from Latin or via French. In our database the Dutch dictionary indicated 'French or (Medieval) Latin' in approximately 5% of the cases. In these cases we categorized the words as French loans, which means that there may have been a slight bias towards French loans in our Dutch database. Many French loans in Dutch can easily be identified to be part of the "Euro-Latin" used in the formal speech of many European languages, and are identical to the corresponding Swedish Latinisms.

Considering these facts, we decided to add up the Latin and French loanwords, thus expressing the number of words which came in via Latin **or** French. This allows a valid comparison of the most important routes for the borrowing of Romance words into both Germanic languages considered in our study. With 86.4%, the number is 46.6% higher in Dutch than in Swedish, with 39.8%. This suggests that overall the influence of Romance languages has been considerably higher on formal Dutch than on formal Swedish.

In Figure 5 our results of the origins of loanwords are compared with the findings reported by Van der Sijs (1996) and Gellerstam (1973). We have taken Low German and High German together, since the previous investigations do not make this distinction either. Similarly we have combined French and Latin to form a new category, which we refer to as Romance.[5] The comparison shows a striking

[5] Note that Van der Sijs includes Italian and Spanish in this category and Gellerstam includes Greek.

resemblance. Apparently, the percentages of words that Dutch and Swedish borrowed from different languages are very robust and insensitive to differences between the corpora.

Figure 5 here

Finally, in Figure 6 we consider the percentages of loanwords from specific loan-giving languages in relation to the whole lexicon, including inherited words. The figure shows clearly that the Low German loans are the only reason why the number of loanwords is higher in Swedish than in Dutch. If we left the words of Low German out of consideration, the number of loanwords would be about equal for the two languages (see dotted line in Figure 6). Considering the fact that for methodological reasons we are unable to assess the exact size of the influence of Low German on Dutch, and speculating, furthermore, that the influence of Low German on the two languages may have been rather similar, the contrast between the two languages may not be as striking as suggested above. What remains, however, is the greater influence of Romance on Dutch and the greater influence of High German on Swedish.

Figure 6 here

6. Conclusions

Our comparison of similarly constructed samples of formal spoken Swedish and Dutch revealed some clear differences in the composition of the lexicons, in spite of a common genetic background and parallels in the history of language contact. Swedish has many more loans than Dutch, namely 44.4% against 27.9%. Moreover, the nature of the loanwords differs. Within the Swedish loans there is a large compartment of Low German (38.7%), whereas most loans in Dutch have a French origin (63.8%). The differences in terms of the number and distribution of loanwords between the lexical profiles of Swedish and Dutch appear to be stable, as they were attested both in the present study and in previous studies. They can be attributed to differences in the linguistic distances between source and borrowing languages and to differences in the intensity of the contacts.

The higher number of French loans in Dutch can easily be explained. The contact between Dutch and French was more intensive and widespread than between Swedish and French. The higher number of Low German loans in Swedish needs some clarification. The intensity of the contact of Swedish and Dutch with Low German was almost identical. One would therefore expect similar numbers of Low German loans in the two languages. This is not what we found. We explained this by the fact that Low German loans are less easily identifiable in Dutch than in Swedish due to the larger similarities between the lexicons of Middle Low German and Middle Dutch. The language contact probably resulted in frequency shifts and semantic adaptation of inherited words rather than a larger incidence of loans.

It should be noted that the reported findings pertain to formal speech. Most probably the speeches and debates in the European Parliament which formed the basis of our study were well prepared and can therefore not be characterized as spontaneous. In this sense, the nature of the *Europarl* sample may be very close to the newspaper texts analyzed in previous studies of Dutch and Swedish. As far as we know, there have been no studies of the lexical profiles of informal spontaneous speech. To fill this gap we analyzed (part of) the speech produced in the component 'face-to-face interactions' of the *Corpus Spoken Dutch*, collected between 1998 and 2004 (Van Bezooijen, Gooskens & Kürschner, fc.). These are conversations about everyday topics between friends and relatives, recorded at home without an interviewer being present. The speakers are from various regions in the Netherlands and Flanders, of both sexes and of different age groups. To optimize the comparison with the findings of the present study, we applied the same selection procedure and coding. The distribution of the loanwords in this spontaneous corpus is very similar to the distribution found in the *Europarl* corpus. This confirms that the lexical profiles of Dutch are very stable and independent of the level of formality, at least as far as the most frequently used words are concerned.[6]

[6] We thank the editors and an anonymous reviewer for valuable comments on earlier versions of this paper.

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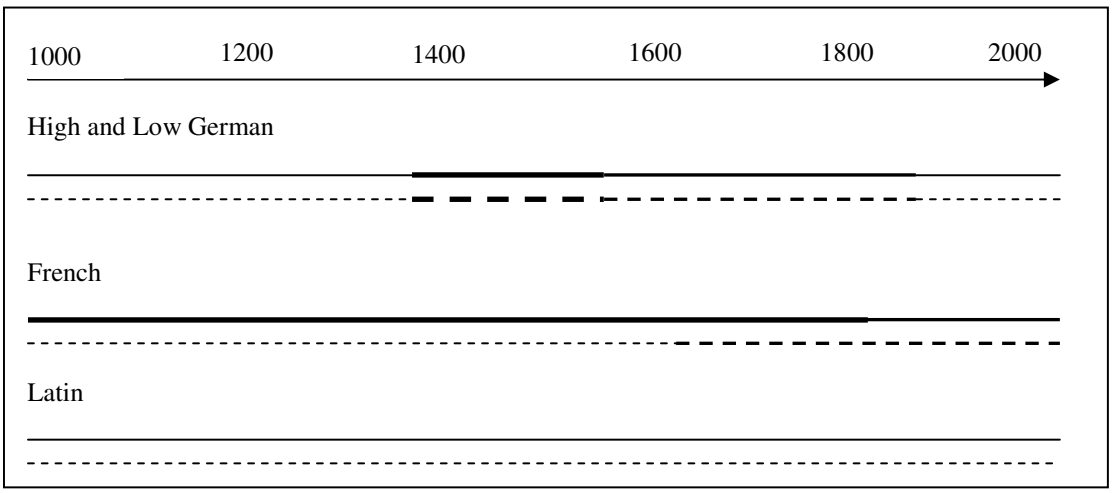

Figure 1. Schematized intensities of language contacts for Dutch (full lines) and Swedish (dotted lines) between 1000 and 2000; the degree of intensity is indicated by boldness.

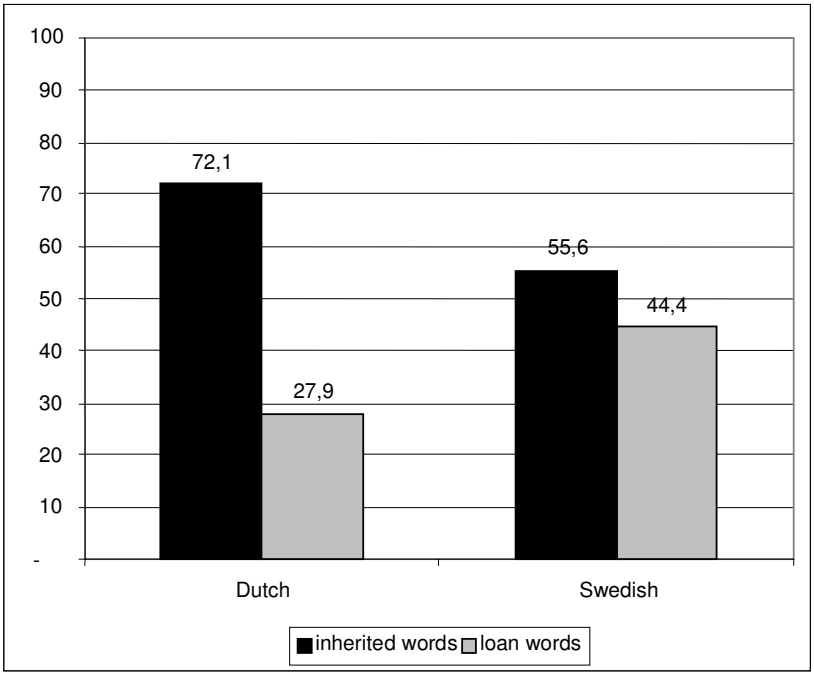

Figure 2. Percentage of inherited words and loanwords in the Dutch and Swedish Europarl corpora

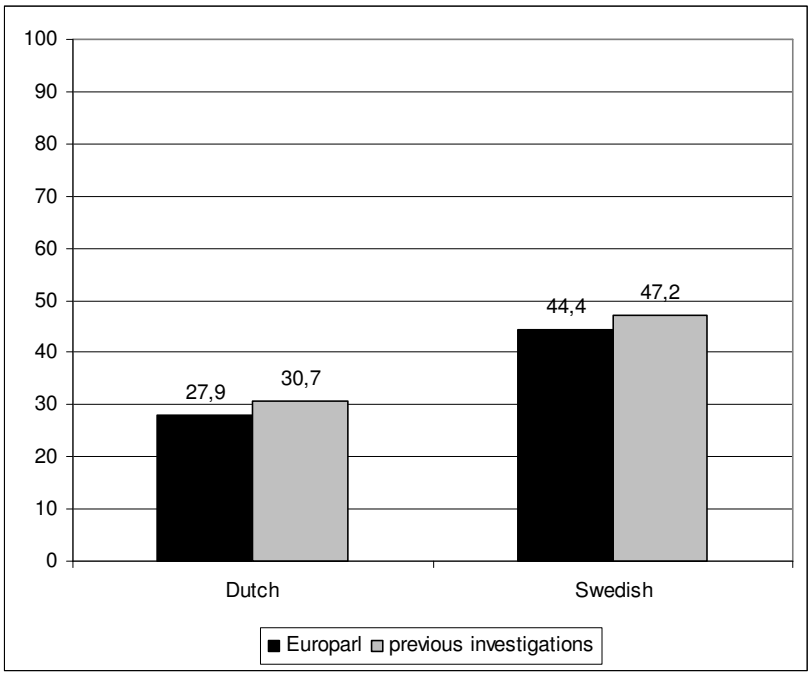

Figure 3. Percentages of loanwords in Dutch and Swedish in the present Europarl corpus and previous investigations (Van der Sijs (1996) for Dutch and Gellerstam (1973) for Swedish)

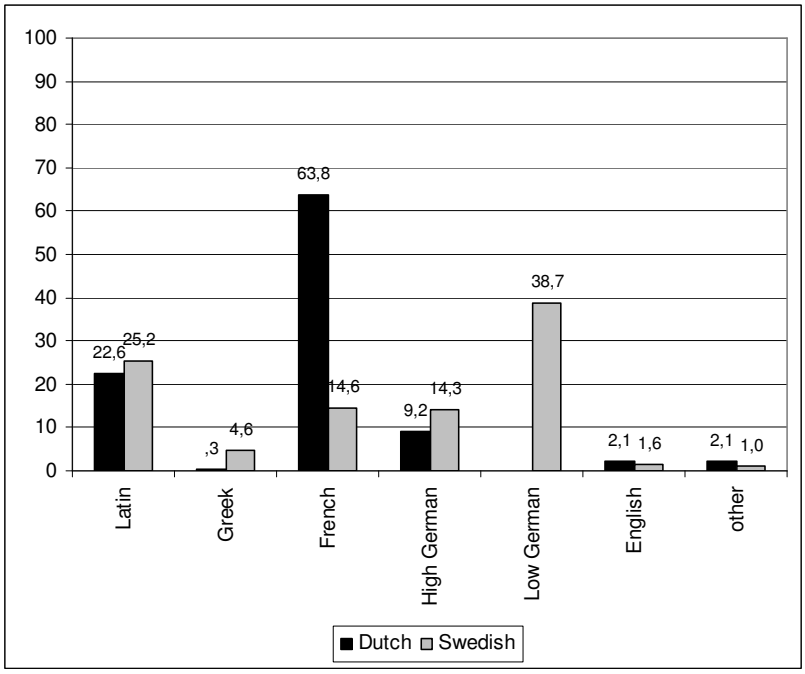

Figure 4. Origin of the loanwords (proportions of the total number of loanwords) in the Europarl corpora

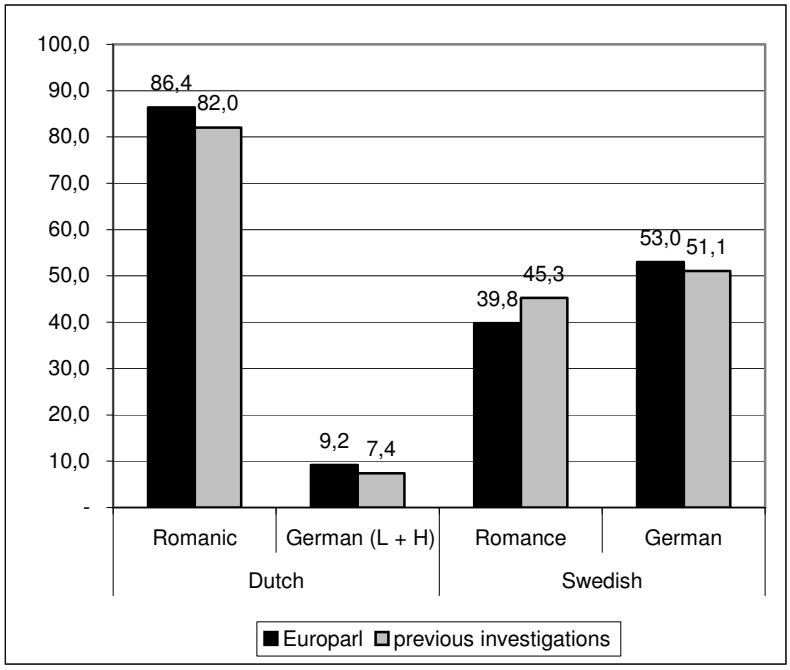

Figure 5. Origin of the loanwords in percentages in the present investigation and in earlier studies (Van der Sijs (1996) for Dutch and Gellerstam (1973) for Swedish)

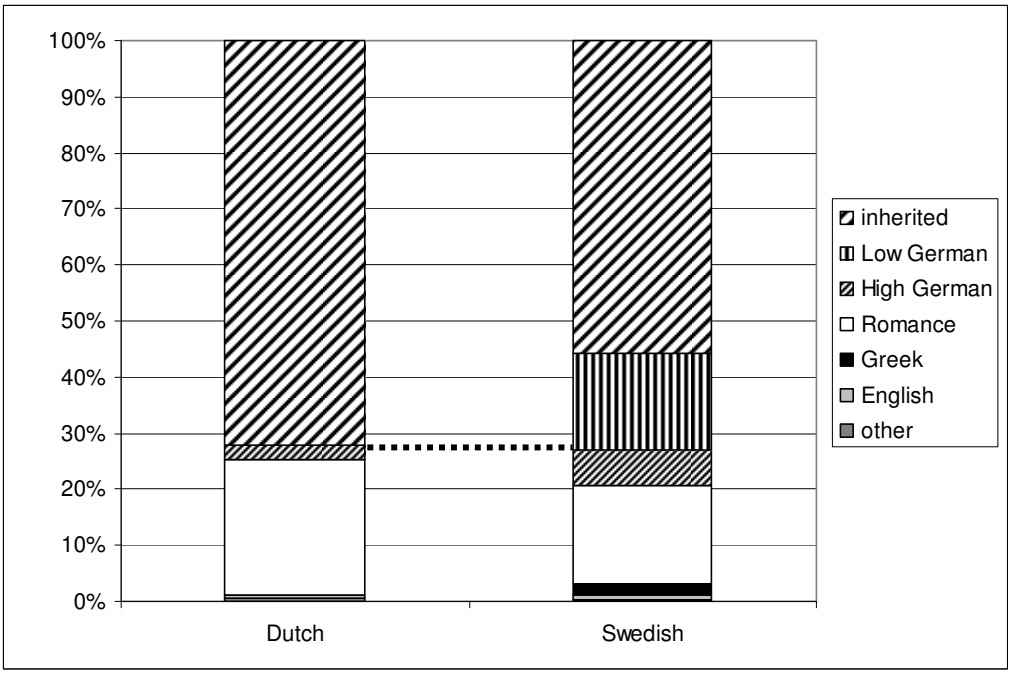

Figure 6. The percentages of loanwords from specific loan-giving languages in relation to the whole lexicon in the Europarl corpora