Toward a linguistic database of Frisian

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It was only at the beginning of last year that the database of Frisian was started by the linguistics department of our Academy. Right from the outset its aims were formulated as: establishing, maintaining and improving a central computer archive and research tool for doing Frisian linguistics.

This meant that a database system needed to be set up that met at least the following requirements:

— It should be a representative inventory of Frisian in all its aspects and developmental stages,
— A flexible and optimally accessible system enabling linguists to investigate the inventory in a variety of ways should be set up,
— A minimum set of basic facilities should be offered relating to: storage of and enhancing primary texts, parsing, lexicometric research and lexicography.

With these starting-points it will first be related what we understand by Frisian as a language, its position in Germanic and its periodization and dialectal spread. It will then be explained how the linguistic database (LDB) will be set up by discussing trajects and ways of input, selection criteria, representativity and a provisional infra-structure of the envisaged system. Finally, a brief outline of the lexicographical projects that we plan to undertake in the near future will be presented.

1. The Frisian language

Frisian is a West Germanic language that — in its oldest stage — belonged, together with Old English and Old Saxon, to the North Sea Germanic group. It is important to stress the use of the correct current terminology, as earlier terminology is still misleadingly used. North Sea Germanic as a term is far preferable to earlier ones like Ingvaeonic or Anglo-Frisian. Ingvaeonic — as a term meant to designate a group of dialects — is misleading, because it is ultimately derived from Tacitus' tripartite division of the West Germanic tribes into Herminiones, Istvaeones and Ingvaeones. Mixing up tribal with linguistic distinctions has been the

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cause for many a scholarly mistake in the past, therefore the term Ingvaenic is now best avoided. Anglo-Frisian is a term dating from Neo-grammarians investigations into the relationship between English and Frisian. It was postulated that Anglo-Frisian was a common ancestor for the two said dialects, but subsequent scholarship has rejected this collective common ancestor. The two dialects, Anglo-Saxon and Frisian in its oldest stages certainly are most closely related, but they exhibit enough fundamentally divergent linguistic features to obviate a thesis of common primordial ancestry. The term Anglo-Frisian is nowadays reserved for runic inscriptions.

Traditionally, three stages of the Frisian language are recognized: Old Frisian, Middle Frisian and Modern Frisian. These three developmental stages do, however, not coincide with the periodization of the other Germanic dialects and in this respect the terms Old and Middle need specifying.

Old Frisian is the language found in a number of manuscripts, charters and one incunabulum that date from the 11th to 16th centuries. The Old Frisian sources derive from an area ranging from the Weser in the East to the IJsselmeer in the West. Though the oldest MSS are relatively young compared to other Old Germanic sources, they often contain texts that are very much older. Linguistically, these early texts reflect features that justify calling this stage Old Frisian and make it comparable with neighbouring Germanic dialects.

Middle Frisian is the term used for the language of the poet Gysbert Japicx, who lived from 1603 to 1666, and that of the literature of the 17th and 18th centuries. Though there are no specific linguistic reasons for considering the period 1550—1800 a separate stage in the process of linguistic evolution, it has been designated as such, and we will continue to do so here for the sake of convenience.

Post-1800, Modern Frisian is commonly split up in three dialects, viz. West Frisian, North Frisian and East Frisian.

2. Restrictions on materials to be selected

It will be readily understood that even for a relatively small language like Frisian, the linguistic universe is huge. It is in fact much too extensive to be taken up in

3 I will return to Old Frisian toward the end of my paper. cf. the relevant headings in the bibliography provided by Breuker (1985).
the LDB in toto. We will have to make a selection that will eventually reflect the Frisian language in a representative way. This poses problems. Representativity is a notion one can measure only if one knows what the universe is one wants to represent. Nature and size of the linguistic universe of any one language are incredibly hard to define. Frisian, being a threatened minority language, is even more difficult to delimit. It is undergoing all sorts of influences from Dutch and slowly but surely, it is being infringed upon by the much more powerful neighbouring language. Any language as a closed system is frayed at its linguistic edges, Frisian is frayed both outside and inside. Within the geographical area in which Frisian is being spoken, linguists have tried to establish a limited set of definable dialects, even — or as one might say, especially — these are being influenced more and more and at an ever increasing speed from outside. Still, it is possible to reach a consensus on what can be considered as standard Frisian. This model, artificial as it may be, is found in the majority of newspaper items, literature and a great number of publications dealing with a wide variety of everyday topics. To capture most of the dimensions along which we define linguistic variety, we have formulated two selection criteria which will allow us to define the character of the corpus materials that are to be taken up in the LDB. Before we turn to these two criteria, three practical limitations are discussed below.

2.1. Spoken versus written materials. First, we have agreed that in the dichotomy between spoken and written forms of language, we will restrict ourselves to written language. For all ways of input for spoken language one is faced with inherent extra steps. This poses a few more or less serious problems. The first thing one needs to bear in mind is that speech is fundamentally interactive. It differs from written forms of language in this respect, because in the latter the interactive aspect is embedded in a construct which is controlled by one and the same person. One does, however, realize that if any claim for linguistic representativity is to be made, it involves a considerable portion of spoken discourse to be taken up into an LDB. It is on pragmatic grounds therefore, and not as a matter of principle that we will henceforth concentrate on printed forms of linguistic material.

2.2. Diachronic restrictions. Second, we shall restrict ourselves to modern contemporary Frisian, i.e. dating from 1950 and later. Starting from the principle that one of the first concrete products of our LDB will be a concise monolingual dictionary of contemporary Frisian, and knowing that the terminus ad quem for the largest dictionary of Frisian yet, the WURDOEK FAN DE FRYSKE TAAL, is 1950, it has been decided to take this very year as the terminus a quo for the collection of our LDB. As soon as it is thought feasible to do so, we will work back in time per decade in order to eventually cover the whole period of modern, i.e. post-1800 Frisian. While in this process, we are able to study the coverage of existing dictionaries in retrospect. A balanced selection of sources that are to constitute the sample corpora for a decade, will thus enable us to compare the lexicon arising from an 'LDB-decade' with existing dictionary coverage.
2.3. Diatopic restrictions. The third restriction is a dialect-geographical one. Here we have opted for taking up only standard West Frisian. This means that only Frisian considered to fit in the model mentioned earlier will be selected. In due time we will need to study how and in what proportion we want to incorporate individual dialects of Frisian. In the present constellation this is of low priority, as we cannot spare the proper personnel to undertake such specific dialectal studies. In the next few years, however, we intend to start a pilot-study to this end which will at least enable us to define what and how much material can be considered as being non-standard.

3. Selection criteria

All these restrictions are of a pragmatic and at the same time provisional nature. As soon as it becomes evident that they should be modified, they will be. With such restrictions in mind, we now turn to the selection criteria we want to apply to the materials.

3.1. Content matter. The first selection criterion deals with content matter. We start from well-known and widely used library classification systems such as UDC and SISO. We first divide the Frisian materials according to headings used in these systems. Within a particular heading we want to respect a proportional representation of subheadings just as with the overall representation. One has to realize, however, that there is an— as yet — unknown relationship between a classification as to subject matter and the exact nature of the vocabulary found in sources belonging to a specific heading. Intuitively, one aims for the widest possible spread over all imaginable subvocabularies, as this will yield the highest coverage of the absolute vocabulary of the language. How high the chance is of finding particular terms, constructs, phrases or idioms when only rating a classification according to subject, remains undetermined until specific attention has been paid to this aspect.

3.2. Intralinguistic aspects. The second selection criterion regards intralinguistic aspects. These are of a stylistic and sociolinguistic kind. Stylistically one can characterise a text along the informal—formal axis, for instance. This can be done in varying degrees of precision depending on the number of levels one wants to discriminate between. For our purposes we will first use a binary division between more formal and more informal. In order to typify a text sociolinguistically, we look at matters like age, sex, education and social position of the authors of the texts. A major question here is the one of differentiation, especially when one only takes written material into consideration. Where does one find enough and — more important — enough differentiated material on which linguistic research of different kinds can be based?
4. Trajects of input

The various methods of input that we use give rise to three separate trajects of input, which together form our master corpus (MC).

4.1. Sample traject. The first traject is the one formed from a string of sampled quanta of language. With this traject we aim to regulate the overall representativity of the database as a whole by selecting samples on the basis of findings from specially designed representativity studies which will take place at regular intervals. Within the limits just mentioned, the two selection criteria will be applied to every sample anew. The criteria will be altered to constitute a parameter network, a selection grid. It is possible to devise a grid whose meshes are extremely fine so that the danger of missing sub-vocabularies (or even words!) is minimized. We will opt for a common-sense approach in this respect, until there are counterindications that force us to use a tighter grid. In order to maintain a workable grid and yet satisfy particular lexicographical needs, the method of excerption is still available.

4.2. Monitor traject. The second traject is contracted externally and concerns machine-readable output from daily newspapers, magazines, book publishers and the like. In this way we intend to build up the bulk of our archive. Here selection plays only a minor role, for one must be grateful for every piece of machine-readable material one can get. In the long run a crude selection for input is possible in order to establish a certain mutual ratio of materials within this traject, but only if research were to necessitate such measures. This is quite apart from determining a ratio between traject 1 and 2, which might need to be computed in case the bulk increases much faster than one can properly adjust by means of sampling techniques or in case one particular kind of linguistic material tends to become over-represented.

4.3. Lexicographical traject. Finally, a third traject is formed by, and at the same time will form, the lexicographical databank. For input we have designated at least our two existing major dictionaries and an as yet undetermined collection of wordlists, glossaries and minor lexicographical works. Part of this traject will be carefully constituted to form our basic-lexicon (BL) and this BL serves as a first filter through which all input is directed (cf. 6. below).

5. A pilot corpus of modern Frisian

After a set of restrictions and selection criteria has been thus determined, one can start to select a first sample corpus. For our purposes we chose some 20 novels, which amongst them contain approximately one million word tokens. The
sampling principle was dictated by the time restriction, viz. the period 1950–1970; we furthermore selected one work per annum and aimed at a certain spread within the category ‘literary prose’ (e.g. not more than one book per author, not too long or short a novel, both complete novels and short story collections to be represented over the period). For the time being, all our texts will be taken up into the LDB integrally, later we may want to decide to change sampling techniques in such a way that only (random?) parts of a complete text will be processed for input.

As this is our first sample we determined its size to be at least one million word tokens. This quantity enables us to cover a few basic aspects such as the graphic system (letter frequencies, word-length, punctuation and spelling variation) and the phonological system (again with relatively few discrete units and fairly simple rules of combination). Furthermore, we needed a manageable quantity of material by means of which we could get some experience in the computing aspects of linguistic data.

6. The LDB and lexicography

In its fifty years of history the Frisian Academy has produced a number of dictionaries of modern Frisian. Two of these need to be briefly discussed here, as they will be used as a basis to start our lexicographical LDB projects from.

6.1. WURDBOEK FAN DE FRYSKE TAAL. This dictionary is called the WURDBOEK FAN DE FRYSKE TAAL and abbreviated WFT. Its first volume finally appeared in 1984 (A-BEHEKST), more than 45 years after work on the dictionary had started in 1938. The second volume (BEHELJE – BLOMSKIE) appeared last year, while following volumes will appear at the rate of one volume per annum. Some twenty volumes have been scheduled, and upon completion round the year 2000, the dictionary will include more than 125,000 entries. The WFT is arranged alphabetically and provides information ranging from standard spelling and pronunciation to idiomatic expressions and proverbs. Furthermore, domains of usage are indicated and concise etymological information is given. Definitions and explanatory material in the WFT are given in the Dutch language (cf. Appendix A).

This academic dictionary distinguishes itself in comparison with previously published Frisian dictionaries by its scope and degree of detail. It aims at providing enough quotations to illustrate all possible uses of its entries from 1800 up to the present time, thus trying to give far-reaching insights into the development of Frisian from a colloquial vernacular to a literary and more standardized language. The completion of the WFT presents a first essential link in the overall scheme of coming to a definitive description of Frisian by means of a series of period dictionaries.
6.2. **CONCISE FRISIAN DICTIONARY.** A derived, concise bilingual dictionary Frisian into Dutch was compiled from the WFT materials and was published in 1984. The concise dictionary (CFD) was the last in a series of dictionaries and can be regarded as an indirect successor to the 1956 and 1944 editions. The 1984 CFD, however, has been considerably enlarged and improved (cf. Sipma 1944, Buwalda, et al. 1956 and Zantema 1984 [= CFD]).

Not only had earlier dictionaries become outdated on account of their modest scope, but also owing to the 1980 change of spelling. Both the CFD and the WFT use the modern standardized spelling, which differs greatly from the previous spelling; the current spelling, approved by the 'Provinciale Staten' (the local government) dates from 1980.

For its 55,000 entries the CFD gives short definitions and illustrates usage with a few examples. It does not give information on etymology, nor does it provide quotations (cf. Appendix B). Both the complete CFD and the now existing two volumes of the WFT have been processed by a computer typesetting system and are therefore readily available for LDB purposes.

6.3. **Applications of the dictionaries for the LDB.** For the time being, we only use the CFD lemmas plus some additional morphological information such as pluralisation, derivatives and compounds.

The first application of the CFD is one of spellchecker. Every primary text token is processed through the basic lexicon before it is definitely entered into the LDB in its final form, i.e. in an encoded form complete with the place where the token occurs in the text and its linguistic specifications. At the moment, the basic lexicon equals the complete list of CFD lemmata, but this will need to be altered into a more efficient shape.

7. **Key word grid**

Starting from our lexicon we intend to set up a kind of grid, called Key Word Grid (KWG), for every lexicographically discrete item. This may be a lemma in the traditional sense, but may also be, more loosely, any word or group of words we may want to treat in one of our planned lexicographical works. The grid is subdivided into information units. The units contain data relating in their own unique way to the entry. Examples of such units together forming the Key Word Grid (KWG) are: orthographical variants; (standard/non-standard) pronunciation; hyphenation, syllabification; part of speech and other grammaticalia, such as patterns in which the entry functions; statistical information; subject classification; monolingual definition(s); collocational patterns; usage notes; equivalents in foreign languages, e.g. Dutch and English. The complete grid should ideally contain virtually every piece of linguistic information on the keyword, up to and including references to articles treating (parts of) the keyword's grid. Per
dictionary project one would need a specific set of units, totalling up the information one would want to supply in the envisaged dictionary. All the necessary information is made available to the lexicographer up to such a sophisticated degree that he can look up sense-related or historically-related keyword grids.

All keyword grids together form the lexicographical database. The lexidata in the LDB relate in a number of ways to other sets of information in the LDB system as a whole. Every KWG will have a unit that contains so-called addresses, for instance. These addresses are references to the stored primary texts and previous lexicographical works where the headword occurs. Another standard unit from the lexidata KWG would be the statistical information. The statistical packet one could offer is extensive, it ranges from crude frequency measures to more sophisticated dispersion and usage indices. It will depend on the type of dictionary one is compiling how much of a KWG unit’s information one is going to include in the dictionary. As we intend to produce at least two other period dictionaries, i.e. one for Old Frisian and one for Middle Frisian, as well as an etymological one and a conceptual one, we aim to make our grid as extensive as still workable. As time goes by, experience will show what overall set of units proves to be optimal toolbox for lexicographical purposes.

This way of processing primary texts should lead to a new list of lemmas with addresses from texts to base their definitions on for the production of the first monolingual dictionary of present-day Frisian.

8. "Frisian-Frisian Wordbook"

This dictionary, now called FFW, short for "Frisian-Frisian wordbook", will form one of the first concrete products from our LDB. Apart from standard information on its every headword, we aim to provide data as to an entry’s: geographical spread; usage coefficient (frequency, dispersion); synonyms, antonyms, related terms; all collocational patterns which are now available to us for the first time, once we have enlarged our master corpus to a representative extent for the period from 1950 onwards. In quantitative terms, we hope to collect 5 to 10 million word tokens per annum, of which 20% will be acquired through sampling via corpora of circa one million tokens each. All these figures are necessarily tentative as yet, since we are still in the preliminary stages of this project. One aspect that will most certainly slant the master corpus is that monitor data were collected from 1985 onwards, while sampling will include the 35 previous years as well.

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5 According to slightly adjusted principles laid down in Mel’cuk (1981), i.e. a fixed set of lexical functions are defined in order to express the relations between two or more 'equal' components that occur in lexical collocations.
8.1. “Frisian-English Wordbook” and other bilingual dictionaries. In addition to this monolingual one we hope to be able to produce a Frisian-English dictionary in a few years' time. This bilingual dictionary will be the first in a new series that will include French, German and Dutch for its target languages.

8.2. Glossary to Old Frisian Charters. Apart from modern Frisian our LDB will take up earlier stages of the Frisian language. We shall begin with processing Old rather than Middle Frisian, as nearly all Old Frisian texts have been well edited, whereas this is not case for Middle Frisian. We shall, however, as with modern Frisian, restrict ourselves initially to part of the Old Frisian corpus. Scholars have established a tripartite division of the extant corpus of Old Frisian materials, namely Classical, Post-Classic and charterian Old Frisian.

This classification has replaced the traditional East versus West division of Old Frisian, which suggested geographical rather than chronological differences between the texts constituting the Old Frisian corpus. The East-West division was based on the alleged provenance of the Old Frisian manuscripts and codices. For all but one or two we cannot, however, determine where the textual sources derive from and a diatopical division is therefore untenable.

Classical Old Frisian ranges from the oldest sources to 1475, Post Classical from 1475 till the end of the period. Charterian Old Frisian is found in some 1300 Old Frisian charters that have come down to us. Charters here is meant to include a fairly wide variety of historical legal documents such as deeds, wills, diplomatic letters and cadastral rolls.

Though approximately one thousand charters have now been diplomatically edited, nothing much has been achieved in describing the vocabulary in any comprehensive way. The linguistic features of charterian Old Frisian certainly warrant special description as it is distinguished by its humped syntax, rather arbitrary orthography and its peculiar technical, i.e. legal terminology.

Though at Groningen University most Old Frisian materials have over the years been excerpted for lexicographical purposes, work has not yet been started on a concrete dictionary. At the Frisian Academy we intend to first produce a complete glossary to the edited charters. Such a glossary will be a welcome addition to existing text glossaries but will at the same time be a first step towards the production of a standard dictionary of Old Frisian. The latter would comprehensively cover all the Old Frisian materials.

In conclusion it can be said that editorial assistants and editors working on the present dictionary projects, who have now used their terminals compiling a dictionary from stacks of quotation slips scattered all over their desks, will in the near future enter the new era of Frisian lexicography as soon as this part of our LDB is operational. The LDB as a whole is scheduled to function as a central archive for Frisian which linguists may purposefully use for their research, be it syntactic, lexicographic or otherwise.
References

Cited dictionaries

FRYSK WURDBOEK,

LYTS FRYSK WURDBOEK

WURDBOEK FAN DE FRYSKE TAAL (WFT)

FRYSK WURDBOEK (CFD – Concise Frisian Dictionary)

Other literature


Bargebinnent

Bargebiedener


bargesnyl

barbier, a. de [barbier] -s; -ke. Barbiër, kapper.

barbierje, v. barbière; haw barbière. Barbière. 1. het barbiervak uitoefenen. 2. (zich laten) scheren.

bargerswinkel, a. de. Barberswinkel, kapperszaak.


I barch, a. de [bara] borgen; barchje. — I baarch.

II barch, a. de. — II baarch.


barbyjes, a. pl. — barbyjes.

barebyst, a. de. Schijnbare beert bij het vissen door de golfslag.


bargesnyl

bargefei

fleone nei, (iron.) er komt niets van terecht; -fel, a. it. 1. Varkenshuid. 2. soort werkmanakkel. It bargel om haaue, slecht gehumeurd zijn; -ferstant, a. st. 1. Verstand als van een varken, klein verstand. 2. kennis van varkens.

bargegera, a. st. 1. Ook barchje, hynstegers, II ierstirker, iersters (2), Kijt, poepertsjeers.


bargemet, a. de. Varkensleer; nek als van een varken; -print, a. de. 1. Afdruk van een varkenspoot. 2. uitwendig teeldeel van een zeeg; -raaig, a. de. 1. Rainaag, Lolium L. — raaiag. 2. Engels raaiag, Lolium perenne L. — cranraz; -râch, a. de. 1. Rug van een varken. 2. hoge rug inv. van een kat. Sjoch dy kat dêr rû riu nichd steen mei in bargerch. 3. schuine afdekking van bovenkant van muur of keerdam, exelsrug; -ribstik, a. st. Ribstuk van een varken; -rîd(de), a. de. Varkensloep, doorloop van varkenshok naar weiland; -rietel (accent wisselt), a. de. Varkensruzel.

barg’r’i, a. de. Erg gemors, vuil werk.

barging, a. de. Ring in snuit van varken;

barging, a. de. Kaper. 1. Rûne in huid van varken; -ringje, v. Ook bargeronje. barberger; haw bargeringe. Varkens van smuttingen voor­ zien; -ronje, v. bargeronje; haw bargeronjes; -barginger; -sytke, a. de. Varkensziekte, inv. vlekty fus; -sìn, a. st. Slecht humeur; -skarabije, v. haw bargeskabe. Afhakren van de huidharen bij een geslacht varken; -slachter, a. de. Varkensslachter; -slach­taje, v. bargeslachtje; haw bargeslachtje. Varkens slechten. It trowen, it plieijen is bargeslachtjen, de uitslag is onzeker. Tyve tsyen en is bargeslachtjen, twee tegen één is beuls­ werk (bij vechten); -smaar, a. st. Varkensvet;

snij, v. haw bargesnien, -snijd. Varkens castreuren; -snijl, a. de. Gele lia, Iris pseudo-