

PETRA NOVOTNÁ – VÁCLAV BLAŽEK

## ON THE LEXICOSTATISTIC CLASSIFICATION OF THE FRISIAN DIALECTS

The main purpose of the present article is to present one of the less known Germanic groups of languages, namely the Frisian dialect cluster. As the tool of our study the lexicostatistic and glottochronological methods were applied, to quantify the mutual relations of the modern Frisian idioms. This study so continues in the series of articles devoted to application of glottochronology for various language groups.

I. Old Frisian is a rather misleading term, because the oldest Old Frisian manuscript, *First Brokmer Manuscript* or *Brokmer Letter*, was composed after 1276 and before 1312, i.e. in the time, when the other West Germanic languages are already in the middle period of their development. The end of the Old Frisian period has usually been dated to 1550. The youngest monument of the Old Frisian languages is the *codex Furmerius*, compiled by Bernhard Furmerius about 1600 on the basis of older manuscripts. The manuscripts, which practically all are the legal texts, have their origin in the North Sea coastal area between Ijseselmeer in the west and the Weser in the east. The texts from c. 1550–1800 are written in so called ‘Older New (West) Frisian’, after 1800 in Modern Frisian (details and references see Markey 1978, 41).

In the 20th century the remaining Frisian idioms have been standardly classified into three dialect groups: Western, Eastern and Northern, consisting of the following dialects and varieties:

**Western Frisian** (see Markey 1978, 173–205)

A. Insular:

- 1) East & West Terschelling [Fr. *Skylge*];
- 2) Schiermonnikoog [Fr. *Skiermûntseach*];

B. Mainland:

- 1) East: North Klei-Frisian, Walden Frisian (both dialects represent the central core of West Frisian);

- 2) West: Klei-Frisian, South West Hook with special varieties of the cities Hindeloopen, Molkwerum.
- 3) Peripheral (in south from the Kuinder [Fr. *Tjonger*] river, forming the border of the compact dialect area): Appelscha.

**Eastern Frisian** (see Markey 1978, 250–57)

Originally the coastal and inland area extended from Lauwer in the west to the mouth of the Weser in the east, including the region known as Wursten in the south of Cuxhaven. Contemporary Eastern Frisian is limited only to a small area called Saterland in moors between Oldenburg and Leer, settled only in the 13th century. Now Saterlandic [*Seeltersk*] is spoken in the last three villages:

- A. North: Strücklingen [*Strukelje*] and Ramsloh [*Roomelse*];
- B. South: Scharrel [*Schäddel*];

**Northern Frisian** (see Markey 1978, 209–47)

A: West Insular:

- 1) Sylt [*Söl'ring*]; 2) West Föhr, South Föhr, East Föhr – Amrum [*Fering* – *Öömrang*]; 3) Helgoland;

B: East Insular – Mainland:

- 1) East Insular: Hallig (spoken on the Tideland Islands: Langeness, Gröde, Oland);
- 2) Mainland (six main varieties from north to south): Wiedingharde, Bökingharde, West & East Mooring, Karrharde, North Goesharde [*Hooring*], Middle Goesharde [*Hoolm*] & South Goesharde.

II. Our study is based on comparison of Standard West Frisian, Saterlandic as the only living representant of East Frisian, and six North Frisian idioms: Mooring, Hoolm & Hooring from the mainland, and Hallig, Föhring and Sylt from the islands located along the coast. The reached figures reflect common percentages in comparison of the standard hundred-word-list.

| %          | Sater | Mooring | Hoolm | Hooring | Hallig | Föhring | Sylt |
|------------|-------|---------|-------|---------|--------|---------|------|
| W. Frisian | 91.7  | 92.8    | 89.9  | 92.8    | 89.9   | 89.9    | 86.3 |
| Sater      |       | 92.9    | 91.8  | 89.7    | 92.9   | 91.8    | 89.4 |
| Mooring    |       |         | 99.0  | 98.0    | 96.0   | 96.0    | 95.8 |
| Hoolm      |       |         |       | 99.0    | 97.0   | 96.0    | 94.8 |
| Hooring    |       |         |       |         | 95.0   | 95.0    | 93.8 |
| Hallig     |       |         |       |         |        | 99.0    | 97.9 |
| Föhring    |       |         |       |         |        |         | 95.8 |

III. The wanted tree-diagram was constructed on the basis of method of balanced averages of percentages reflecting the closest pairs of idioms. The crucial question was the position of Saterlandic between West and North Frisian. The

results were very close: West vs. East Frisian: 91.7% and East vs. North Frisian 91.4%. Applying the results of the ‘recalibrated’ glottochronology developed by Sergei Starostin, we have reached the following tree-diagram (details of the method – see Novotná & Blažek 2005, 51–80 and 2006, 91–97).

IV. Our results may be summarized as follows:

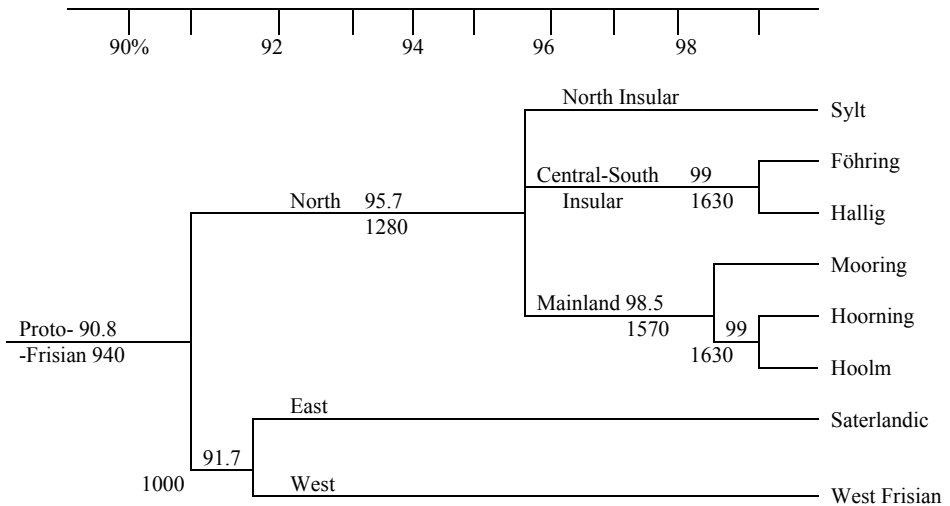
(1) In contrary to the traditional classification, based especially on the phonological isoglosses, according to our lexicostatistic analysis, there are three North Frisian groups: (i) Mainland, (ii) North Insular (Sylt), (iii) Central & South Insular (Föhring & Hallig). Unfortunately, we have not at our disposal the relevant lexical data from Helgolandic. But it is very probable that this idiom would represent the fourth, East Insular, group.

(2) Saterlandic is closer to West Frisian (91.7%) than to North Frisian (91.4%), although the difference in common average percentages is so little that it is possible to think about a common dialectal continuum.

(3) Three branches of Frisian, West, East and North, represent real, independent languages, not only dialects, approximatively comparable with the situation of the modern West Slavic languages, also consisting of three branches: Czech-Slovak, Lusatian and Lekhitic.

(4) The disintegration of common Frisian was realized during the 10th cent., when all branches separated one from another.

The result can be depicted in the following tree-diagram:



## APPENDIX I: Introduction into glottochronology

0. The method called *glottochronology* represents an attempt to date the divergence of related languages in absolute chronology. Its author, Morris Swadesh, was inspired by another method, used for dating organic remnants, the so called

radiocarbon method. Let us repeat the main steps in the deduction of the method. In the beginning it was the discovery of the radiocarbon isotope  $C^{14}$ , existing in the atmosphere in the proportion  $1 : 10^{12}$  with the usual isotope  $C^{12}$ . Thanks to the food-chain, the radioactive isotope occurs in green plants and consequently in biological tissues of animals. After the death of any living organism the disintegration of the radioactive isotopes according to the exponential function follows. The exponential disintegration means that after the constant time period  $T$  (= half-time of disintegration) the concentration of the radioactive isotope falls in a half, after  $2T$  in a quarter, etc. On the basis of this phenomenon, W.F. Libby developed the radiocarbon method (1947), serving to determine the age of organic remnants younger than 50 millennia. The method was recently defined with more precision (e.g. the change of the half-time from 5568 to 5730 years; correlation with dendrochronology, etc.), but its basic idea remains. Regarding the fact that M. Swadesh borrowed the mathematic apparatus from Libby, it is useful to repeat it.

(1)  $\Delta N(t) = -\lambda \cdot N(t) \cdot \Delta t$  ... decrease  $\Delta N$  from  $N$  radioactive nuclei in the time interval  $\Delta t$ , where  $\lambda$  is a constant of proportion

(2)  $dN(t) = -\lambda \cdot N(t) \cdot dt$  ... approximation of discrete quantities by connected ones, allowing the integration

$$\int \frac{dN(t)}{N(t)} = \int -\lambda \cdot dt \dots \text{leading to the solution}$$

$\ln N(t) = -\lambda \cdot t + C$ . After delogarithmization we reach

$N(t) = e^{-\lambda t + C} = e^{-\lambda t} \cdot e^C$ , where  $e^C = K$ . So we can write

$$N(t) = K \cdot e^{-\lambda t}.$$

It remains to determine the function of the constant  $K$ . It is possible thanks to the initial conditions, i.e. in the time  $t = 0$ , when  $N(t) = N_0$ :

(3)  $N(t) = N_0 \cdot e^{-\lambda t}$ , where  $N_0$  represents the number of undisintegrated nuclei at the beginning of the process.

From the equation (3), which is a standard solution of the differential equation (2), we deduce the significance of the *half-time of disintegration*  $T$ , defined as the time interval, in which the number of the undisintegrated nuclei decrease in  $1/2$ :

$$(4) N(T) = \frac{1}{2} N_0$$

$$\frac{1}{2} N_0 = N_0 \cdot e^{-\lambda T}, \text{ after a reduction}$$

$$\frac{1}{2} = e^{-\lambda T}, \text{ after logarithmization}$$

$$\ln \frac{1}{2} = -\lambda T, \text{ i.e. } \ln 2 = \lambda T, \text{ or}$$

$$(5) T = \frac{\ln 2}{\lambda}$$

The half-time of disintegration of the radioactive isotope  $C^{14}$  was empirically established as 5730 years. It allows one to determine the value of the constant of disintegration  $\lambda$ .

For practical calculations it is helpful to use the formula, derived from the defini-

tion of the half-time of disintegration. If the number of the undisintegrated nuclei decreases in  $\frac{1}{2}$  after every time period T, we get:

(6)  $N(t) = N_0 \cdot \left(\frac{1}{2}\right)^n$ , where n means, how many periods T correspond with the age of the specimen. Hence

$$\frac{N(t)}{N_0} = \left(\frac{1}{2}\right)^n, \text{ i.e. } \frac{N_0}{N(t)} = 2^n. \text{ Let us logarithmize it:}$$

$$\ln \frac{N_0}{N(t)} = \ln 2^n = n \cdot \ln 2 \text{ and we reach}$$

$$(7) n = \frac{\ln \frac{N_0}{N(t)}}{\ln 2}$$

From here we get the age of the specimen

$$(8) t = n \cdot T.$$

1. Around 1950 Libby's radiocarbon method inspired one American anthropologist and specialist in native American languages, Morris Swadesh, to extend its application to the development of languages. His goal was the absolute dating of the time of divergence of related languages. Swadesh thought that the replacement of words in languages is determined by exponential rule similar to the disintegration of radioactive nuclei of isotope  $C^{14}$ . He needed to calculate the rate of this change. For this reason he established a testing word-list, consisting first of 215, later of 200 semantic units, which had to be universal and immune from borrowing. Thanks to the cooperation of specialists in sinology, egyptology, classical philology, Romance and Germanic linguistics, he was able to determine the average constant of disintegration applied to one millennium, in 19,5% changes in the testing word-list, i.e. on average 80,5% of the units of the basic word lexicon in the development of one language should be preserved during this period (see Swadesh 1952). Naturally, if the constant is really universal. In 1955 Swadesh published a new study, reflecting the first critical reactions. He radically reduced and changed the testing word-list. The new list consisted of 100 semantic units. On the basis of the reduced 'basic lexicon', the constant of disintegration was changed to 14% per. millennium, i.e. 86% of the lexical units should be preserved in the development of one language after one millennium. The elementary postulates may be formulated as follows:

[1] In the lexicon of every natural language it is possible to determine the part, which is more stable than others. Let us call it the *basic lexicon*.

[2] It is possible to define the set of meanings, expressed in every language by words from the *basic lexicon*. Let us designate it the *basic testing list* (BTL). The symbol  $N_0$  will signify the number of various meanings, contained in the list.

[3] The share r of the words from the basic testing list preserved after the con-

stant period  $\Delta t$ , is constant; i.e. it depends only on the length of the time interval, not on a concrete language or a choice of words.

[4] All words representing the basic testing list have equal chances of being preserved during the same time interval.

[5] The probability of being preserved for any unit from the basic testing list does not depend on the probability of being preserved in the basic testing list of another language.

To calculate the time passed between the existence of two languages A and B, where B is a descendant of A, Swadesh used the mathematical apparatus from the radiocarbon method. He began from equation (3):

(9)  $N(t) = N_0 \cdot e^{-\lambda t}$ , where  $\lambda$  represents the analogy to the constant of disintegration in the equation (3). Exactly it is defined as the share of the words in the basic testing list, which are replaced during one millennium. Hence:

$$(10) \frac{N(t)}{N_0} = e^{-\lambda t}, \text{ or } \ln \frac{N(t)}{N_0} = -\lambda t. \text{ From here}$$

$$(11) t = \frac{\ln \frac{N(t)}{N_0}}{-\lambda} \text{ or } \frac{h c}{-\lambda}, \text{ where } c = \frac{N(t)}{N_0}.$$

If the share  $r$  from the postulate (3) is also related to the period of one millennium, it will represent the constant which is complementary to  $\lambda$ , i.e.

$$(12) r = 1 - \lambda.$$

For the decrease of the words from BTS per millennium the equation

$\Delta N = N_0 - N(t_1) = N_0 - N_0 \cdot e^{-\lambda \cdot 1} = N_0 (1 - e^{-\lambda})$  is valid. The same value must be reflected in the product  $N_0 \cdot \lambda$ . From the comparison  $1 - e^{-\lambda} = \lambda = 1 - r$  (see 11) we reach

$$(13) r = e^{-\lambda}.$$

The same result is accessible from the comparison of the right sides of the equations expressing the shares of the preserved words in the BTL per millennium:  $N = N_0 \cdot e^{-\lambda \cdot 1}$  &  $N = N_0 \cdot r$ .

Consequently it is possible to rewrite the equation (10) by means of (13) in the form

$$(14) c = r^t, \text{ where } t \text{ indicates the time in millennia.}$$

Regarding the postulate (5) the share  $c_2$  of the preserved lexicon from the BTL in two related languages, i.e. the languages, developed from a common protolanguage, equal to the square of the share of the words preserved in the individual development:

$$(15) c_2 = (r^t)^2 = r^{2t}. \text{ Logarithmizing it, we express } t:$$

$$\ln c_2 = \ln r^{2t} = 2t \ln r. \text{ From here}$$

$$(16) t = \frac{\ln c_2}{2 \ln r} \text{ or with respect to the equation (13)}$$

$$(17) t = \frac{\ln c_2}{-2\lambda},$$

where  $c_2$  means the share of commonly inherited pairs of the words in BTL in both analyzed languages.

In application of glottochronology the formulae (16) or (17) are used most frequently. For illustration of the practical procedure let us to estimate the time of divergence of German and French. In the BTL of both languages there are 33 pairs of commonly inherited words. Both lists are complete, which means that  $c_2 = 0,33$ . Applying it for the equations (16) or (17), we reach the time of divergence in millennia:

$$(16) t = \frac{\ln 0,33}{2 \ln 0,86} = \frac{-1,10866}{-0,30164} = 3,675$$

It is more advantageous to calculate a rich set of data with corresponding share of preservation of BTL for one language ( $c_1$ ) or for two related languages ( $c_2$ ) – see table 1:

|       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| $c_1$ | 0,99 | 0,97 | 0,95 | 0,90 | 0,85 | 0,80 | 0,75 | 0,70 | 0,65 | 0,60 | 0,55 | 0,50 | 0,45 | 0,40 | 0,35 | 0,30 | 0,25 | 0,20 | 0,15 | 0,10 |
| $c_2$ | 0,97 | 0,94 | 0,90 | 0,81 | 0,72 | 0,64 | 0,56 | 0,49 | 0,42 | 0,36 | 0,30 | 0,25 | 0,20 | 0,16 | 0,12 | 0,09 | 0,06 | 0,04 | 0,02 | 0,01 |
| $t$   | 0,03 | 0,20 | 0,35 | 0,70 | 1,10 | 1,50 | 1,90 | 2,40 | 2,90 | 3,40 | 4,00 | 4,60 | 5,30 | 6,10 | 7,00 | 8,00 | 9,30 | 10,7 | 13,0 | 15,3 |

The time of divergence for German and French occurs in the line for  $t$ , corresponding with  $c_2 = 0,33$ . This value may be approximated between the times 3,40 a 4,00 millennia in table 1. Concretely it is possible to estimate the age of the common ancestor for German and French as 3700 BP or 1700 BC according to the methodology developed by Swadesh.

The preceding steps operated only with a pair of synchronic languages. It is also necessary to solve the situation, if each of the compared languages was recorded at a different time. Let us designate  $t_1$  and  $t_2$  the times from the disintegration of the common ancestor of the compared languages to their record in various times. In this case the equation (16) can be modified as  $2t = \frac{\ln c_2}{\ln r}$ , and further

$$(18) t_1 + t_2 = \frac{\ln c}{\ln r}.$$

Since  $t_1$  and  $t_2$  are usually unknown, only their subtraction  $\Delta t_{12}$  is at our disposal, it is possible to substitute the sum  $t_1 + t_2$  by  $t_1 + t_1 + \Delta t_{12} = 2t_1 + \Delta t_{12}$ , where  $t_1$  is shorter from both intervals  $t_1, t_2$ . From here for two asynchronously attested languages the final formula appears as follows:

$$(19) t_1 = \frac{\ln c}{2 \ln r} - \frac{\Delta t_{12}}{2}, \text{ where } t_1 = \min(t_1, t_2).$$

2. Swadesh's glottochronology was welcomed by specialists studying languages without a longer literary history. On the other hand, the sharpest negative reaction was from specialists in the Indo-European languages. This was understandable: the comparison of the glottochronological estimates with safely known facts from the known history of some Indo-European languages frequently indicated a big disagreement. More interesting than the aprioristic rejection was the criticism of the concrete premises, postulates, conclusions, especially, if the critics offered their alternative solutions. The most remarkable modifications eliminating some of the weak points of the method were formulated by the Canadian Sheila Embleton (1986) and the Russian Sergei Starostin (1989, English 1999). Both scholars agreed that the 'classical glottochronology' of Swadesh was mistaken in that the replacement of words was not distinguished from borrowing. E.g. such innovation was Russian *glaz* "eye", which replaced common Slavic *\*oko*. On the other hand, it is possible to identify a borrowing, probably of Iranian origin, in Russian *sobaka* "dog", besides the less frequent *pēs*, which reflects common Slavic *\*pъsъ* "dog". Starostin offered a simple solution: eliminate all borrowings before any calculation. Applying this procedure to the testing languages, used for the estimation of the constant of disintegration  $\lambda$ , we reach lower value of the constant and its significantly smaller dispersion (table 3).

Starostin compared the proportions of the inherited lexicon in histories of the same languages during various time of divergence, related to one millennium times, concretely in some Romance languages versus Vulgar Latin from the middle of the first mill. AD and versus early classical Latin from the time of Plautus, c. 200 BC. The values of  $c$  in the table 2 are calculated now without loans; time is expressed in millennia:

| TABLE 2<br>language | $c = \frac{N(t)}{N_0}$ , $t = 1,5$ | $\lambda = \frac{\ln c}{-t}$ , $t = 1,5$ | $c = \frac{N(t)}{-t}$ , $t = 2,2$ | $\lambda = \frac{\ln c}{-t}$ , $t = 2,2$ |
|---------------------|------------------------------------|--|-----------------------------------|--|
| French              | 88/99 = 0,89                       | 0,07                                     | 75/97 = 0,77                      | 0,12                                     |
| Spanish             | 90/98 = 0,92                       | 0,06                                     | 79/97 = 0,80                      | 0,10                                     |
| Rumunian            | 87/96 = 0,91                       | 0,06                                     | 76/95 = 0,80                      | 0,10                                     |

For the differences between the results in the third and fifth columns Starostin finds the only explanation, the formula (11), implying  $\lambda = \frac{\ln c}{-t}$ , is not valid.

The empirical figures from the table 2 confirm that the optimal approximation is the function

$$\lambda^* = \frac{\lambda}{t} = \frac{\ln c}{-t^2} \quad (20).$$

The preceding thoughts are based on the data in the table 3:

| language            | age $t$ [millennia] | $\lambda$ after Swadesh | $\lambda\lambda$ without loans | $\lambda^* = \lambda / t$ |
|---------------------|---------------------|-------------------------|--------------------------------|---------------------------|
| English             | 1,3                 | 0,14                    | 0,10                           | 0,08                      |
| German              | 1,2                 | 0,08                    | 0,05                           | 0,04                      |
| Norwegish (riksmal) | 1,0                 | 0,20                    | 0,05                           | 0,05                      |



| language  | age t [millennia] | $\lambda$ after Swadesh | $\lambda\lambda$ without loans | $\lambda^* = \lambda / t$ |
|-----------|-------------------|-------------------------|--------------------------------|---------------------------|
| Icelandic | 1,0               | 0,06                    | 0,06                           | 0,06                      |
| French    | 1,5               | 0,09                    | 0,07                           | 0,05                      |
| Spanish   | 1,5               | 0,07                    | 0,06                           | 0,04                      |
| Rumunian  | 1,5               | 0,09                    | 0,06                           | 0,04                      |
| Japanese  | 1,2               | 0,11                    | 0,06                           | 0,05                      |
| Chinese   | 2,6               | 0,10                    | 0,10                           | 0,04                      |

It is apparent that the dispersion of the ‘constant of disintegration’  $\lambda$  according to Swadesh is very high, from 6 do 20%. After the elimination of borrowings, the dispersion of this value for the analyzed nine languages tapers to 5–10%. Still narrower will be the interval in the case, if  $\lambda$  is a function of time. Abstracting from rather specific English, the value oscillates from 4 to 6%. These results led Starostin to the new value of the ‘constant of decrease’:  $\lambda = 0.05$  per millennium. The situation of English is more complex. It seems its development is faster than is usual in other languages. This phenomenon is undoubtedly connected with the massive influence of Old Norse in the period 800–1100 and Old French in the following five centuries, causing according to Starostin certain pidgin-like features in English. But even the new value of  $\lambda = 5\%$  does not defend against tendency to reach a more recent date of divergence, especially in the case of longer time periods. Starostin seeks a solution in the following idea. It is empirically proven that individual words in the lexicon of every language, including BTL, are replaced unevenly. If the words in any language were ordered from least stable to most stable, the words with the lowest stability would be replaced most quickly, while the more stable words would have a longer life. This means, the speed of changes decreases over time. Summing up, “c” is not a constant, but a function of time,  $c = c(t)$  and formula (9) should be modified as follows:

$$(21) N(t) = N_0 \cdot e^{-\lambda \cdot c(t) \cdot t^2} \text{ for a development of one language, where } c(t) = \frac{N(t)}{N_0}, \text{ and}$$

$$(22) N(t) = N_0 \cdot e^{-2\lambda \cdot \sqrt{c(t)} \cdot t^2} \text{ for the divergence of two languages, developed from a common protolanguage.}$$

From here it is possible to deduce for the time of development of one language (23), or for the time of divergence of two languages (24):

$$(23) t = \frac{\sqrt{\ln c}}{\sqrt{-\lambda c}}$$

$$(24) t = \frac{\sqrt{\ln c}}{\sqrt{-2\lambda\sqrt{c}}}$$

The result is a transcendental function, since  $c = c(t)$ . The easiest way of determining of the time of divergence for the empirically investigated values is offered in table 4, calculated by Sergei Starostin:

|                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| c <sub>1</sub> | 0,99 | 0,97 | 0,95 | 0,90 | 0,85 | 0,80 | 0,75 | 0,70 | 0,65 | 0,60 | 0,55 | 0,50 | 0,45 | 0,40 | 0,35 | 0,30 | 0,25 | 0,20 | 0,15 | 0,10 |
| c <sub>2</sub> | 0,97 | 0,94 | 0,90 | 0,81 | 0,72 | 0,64 | 0,56 | 0,49 | 0,42 | 0,36 | 0,30 | 0,25 | 0,20 | 0,16 | 0,12 | 0,09 | 0,06 | 0,04 | 0,02 | 0,01 |
| t              | 0,3  | 0,8  | 1,0  | 1,5  | 2,0  | 2,4  | 2,8  | 3,2  | 3,7  | 4,1  | 4,7  | 5,3  | 6,0  | 6,8  | 7,8  | 9,0  | 10,7 | 12,7 | 16,6 | 21,5 |

Now it is possible to return to the question of the time of divergence between German and French. In both languages there are 3 loans in the BTL and 33 common cognates.

Hence

$$c_2 = \frac{3}{100 - 3 - 3} = \frac{33}{94} = 0.351 = 35,1\%.$$

The corresponding time of divergence is c. 4 220 years. Naturally, it is an exaggeration to conclude that two languages were separated in a single concrete decade. Better is to use the formulation that their common protolanguage disintegrated in the 23rd cent. BC.

2.1. The situation of two asynchronously attested languages is solved by Starostin differently from Swadesh. Starostin's strategy consists in projection of the historical data to the present level and only after this synchronization the same approach as for living languages is applied to them. It is useful to demonstrate this procedure on concrete idioms, e.g. classical Latin e.g. of Caesar (1st cent. BC) and Gothic of Wulfila's translation of the New Testament (4th cent. AD). The Latin corpus (i.e. the 100-word-list) is complete, while in the Gothic list 18 units are missing (if Crimean Gothic *ada* "egg" is included). This means, there are 82 common semantic pairs from the BTL and from them 39 cognates, i.e. etymologically related forms inherited from a common protolanguage. The proportion 39/82 means 47,6%. A language recorded at the time interval  $\Delta t$  ago would preserve till the present  $c$ -times less words from BTL. For Latin recorded 20.5 cent. ago it is c. 0.845. If Gothic would exist till the present time, in its hypothetical descendant the share of the preserved BTL would be 0.892 (see table 4). The common protolanguage of Latin and Gothic projected into the present would preserve  $c_{LG} \cdot c_L \cdot c_G = 0.476 \cdot 0.842 \cdot 0.892 = 0.357$ , i.e. 35,7% common words. Let us mention, the result of the comparison of German and French gave the share 0.351. This means, the dating of the divergence of the representatives of modern Germanic and Romance languages is practically the same as the dating of the divergence of Latin and Gothic, the 23rd cent. BC. It seems to be natural, but for the 'classical glottochronology' it was an unattainable goal.

**APPENDIX II: Word-Lists**  
**OLD, WEST & EAST FRISIAN**

|            | Old Frisian                       | West Frisian                        | East Frisian: Sater | proto-Germanic                         |
|------------|-----------------------------------|-------------------------------------|---------------------|--|
| 1. all     | <i>alle / al</i>                  | <i>alles</i>                        | <i>aal</i>          | * <i>allaz</i>                         |
| 2. ashes   |                                   | <i>jiske / as</i> < Dutch <i>as</i> | <i>äiske</i>        | * <i>askōn</i>                         |
| 3b. bark   |                                   |                                     | <i>boork</i>        | * <i>barkuz</i>                        |
| 3c. bark   |                                   | <i>bast</i>                         |                     | * <i>bastaz</i>                        |
| 4a. belly  | <i>būk / būch</i>                 |                                     | <i>buk</i>          | * <i>būkaz</i>                         |
| 4b. belly  |                                   | <i>liif</i>                         |                     | * <i>līban</i>                         |
| 4d. belly  | <i>wamme</i>                      |                                     | <i>wampe</i>        | * <i>wambō</i>                         |
| 5a. big    | <i>grāt</i>                       | <i>great</i>                        | <i>groot</i>        | * <i>grautaz</i>                       |
| 5b. big    | <i>stōr</i>                       |                                     |                     | * <i>stōraz</i>                        |
| 5c. big    | <i>brēd</i>                       |                                     |                     | * <i>braidaz</i>                       |
| 5d. big    |                                   | <i>foarsk</i>                       |                     |  |
| 5e. big    |                                   | <i>mānsk</i>                        |                     | cf. OFr. <i>manich</i> many            |
| 6. bird    | <i>fugel</i>                      | <i>fūgel</i>                        | <i>fugel</i>        | * <i>f(l)uglaz</i>                     |
| 7. bite    | <i>bīta</i>                       | <i>bite</i>                         | <i>bite</i>         | * <i>bītanan</i>                       |
| 8. black   | <i>swart</i>                      | <i>swart</i>                        | <i>suoot/swot</i>   | * <i>swartaz</i>                       |
| 9. blood   | <i>blōd</i>                       | <i>bloed</i>                        | <i>bloud</i>        | * <i>blōdan</i>                        |
| 10a. bone  | <i>bēn</i>                        | <i>bien</i>                         | <i>been</i>         | * <i>bainan</i>                        |
| 10b. bone  |                                   |                                     | <i>knooke</i>       | * <i>knukōn</i>                        |
| 11. breast | <i>brust / burst &amp; briast</i> | <i>boarst</i>                       | <i>brüst</i>        | * <i>brustiz</i> & * <i>breustan</i>   |
| 12a. burn  | <i>berna</i>                      | <i>brānne</i>                       | <i>baa(de)nje</i>   | * <i>brennanan</i>                     |
| 12b. burn  | <i>swela</i>                      |                                     |                     | * <i>swelanan</i>                      |
| 12c. burn  |                                   |                                     | <i>tūnderje</i>     | * <i>tundrajanan</i>                   |
| 13a. claw  | <i>klawe / klē</i>                | <i>klau / kloer</i>                 | <i>klaue</i>        | * <i>klēwō</i> / * <i>klōwō</i>        |
| 13b. claw  | <i>neil / nīl</i>                 |                                     |                     | * <i>naglaz</i>                        |
| 14a. cloud | <i>wolken</i>                     | <i>wolk(en)</i>                     | <i>wülke</i>        | * <i>wulk(a)na</i> "                   |
| 15a. cold  | <i>kald</i>                       |                                     | <i>koold</i>        | * <i>kaldaz</i>                        |
| 15b. cold  |                                   | <i>koel</i>                         |                     | * <i>kōluz</i>                         |
| 15c. cold  | ( <i>īs</i> ice)                  |                                     |                     | * <i>īsaz</i>                          |
| 16. come   | <i>kum / koma</i>                 | <i>komme</i>                        | <i>kuume</i>        | * <i>kwemanan</i>                      |
| 17a. die   | <i>sterva</i>                     | <i>stjerre</i>                      | <i>stierwe</i>      | * <i>sterbanan</i>                     |
| 18a. dog   | <i>hund</i>                       | <i>houn</i>                         | <i>huund</i>        | * <i>hundaz</i>                        |
| 18b. dog   |                                   | <i>dogge</i>                        |                     | cf. G. <i>Dogge</i> < ME. <i>dogge</i> |
| 19. drink  | <i>drinka</i>                     | <i>drinke</i>                       | <i>drinke</i>       | * <i>drenkanan</i>                     |
| 20a. dry   |                                   | <i>droech</i>                       |                     | * <i>draugiz</i>                       |
| 20c. dry   |                                   |                                     | <i>soor</i>         | * <i>sauzáz</i>                        |
| 20d. dry   | <i>gāst</i>                       |                                     |                     | * <i>gaistaz</i>                       |
| 21. ear    | <i>āre</i>                        | <i>ear</i>                          | <i>oor</i>          | * <i>auzōn</i>                         |
| 22a. earth | <i>erthe</i>                      |                                     | <i>äide/īdde</i>    | * <i>erbō</i>                          |
| 22b. earth |                                   | <i>groun</i>                        |                     | * <i>grunduz</i>                       |
| 23. eat    | <i>eta</i>                        | <i>ite</i>                          | <i>iten</i>         | * <i>etanan</i>                        |
| 24. egg    |                                   | <i>aei</i>                          | <i>oai</i>          | * <i>ajjaz</i>                         |
| 25. eye    | <i>āge</i>                        | <i>each</i>                         | <i>ooge</i>         | * <i>augōn</i>                         |

|                       | Old Frisian              | West Frisian                        | East Frisian: Sater                  | proto-Germanic                              |
|-----------------------|--------------------------|-------------------------------------|--------------------------------------|---|
| 26a. fat <sub>s</sub> | ( <i>smere</i> tallow)   | <i>swier</i>                        | <i>smeer</i>                         | * <i>smervan/-ōn</i>                        |
| 26b. fat <sub>s</sub> | <i>fāt</i>               |                                     | <i>fat</i>                           | * <i>faitaz</i>                             |
| 26c. fat <sub>s</sub> |                          | <i>tsjok</i>                        |                                      | * <i>þekwiaz</i> : * <i>þekwuz</i><br>thick |
| 27a. feather          | <i>fethere</i>           | <i>fear</i>                         |                                      | <i>feþrō</i>                                |
| 27b. feather          |                          |                                     | <i>függe</i>                         | < G. <i>Flügel</i> ?                        |
| 28a. fire             | <i>fiōr / fiūr</i>       | <i>fjūre</i>                        | <i>fjuur</i>                         | * <i>fūr</i> ~ * <i>fuwer</i>               |
| 29. fish              | <i>fisk</i>              | <i>fisk</i>                         | <i>fisk</i>                          | * <i>fiskaz</i>                             |
| 30. fly <sub>v</sub>  | <i>fliāga</i>            | <i>fleane</i>                       | <i>fjoooge</i>                       | * <i>fleuganan</i>                          |
| 31. foot              | <i>fōt</i>               | <i>foet</i>                         | <i>fout</i>                          | * <i>fōtz</i> ~ * <i>fōtuz</i>              |
| 32. full              | <i>fol / ful</i>         | <i>fol</i>                          | <i>fül</i>                           | * <i>fullaz</i>                             |
| 33a. give             | <i>geva</i>              | <i>jaen</i>                         |                                      | * <i>gebanan</i>                            |
| 33b. give             |                          |                                     | <i>dwoo</i>                          | * <i>dōnan</i>                              |
| 34. good              | <i>gōd</i>               | <i>goed</i>                         | <i>goud</i>                          | * <i>gōdaz</i>                              |
| 35. green             | <i>grēne</i>             | <i>grien</i>                        | <i>grāin</i>                         | * <i>grōniz</i>                             |
| 36. hair              | <i>hēr</i>               | <i>har</i>                          | <i>hier</i>                          | * <i>hēran</i>                              |
| 37. hand              | <i>hand</i>              | <i>hân</i>                          | <i>huund</i>                         | * <i>handuz</i>                             |
| 38a. head             | <i>hā(ve)d</i>           |                                     |                                      | * <i>habudan</i>                            |
| 38b. head             |                          | <i>holle</i>                        |                                      | * <i>hulniz</i>                             |
| 38c. head             |                          | <i>heila</i>                        |                                      | * <i>hawilō</i>                             |
| 38d. head             | <i>kopp</i>              |                                     | <i>kop</i>                           | < G. <i>Kopf</i> < L. <i>cuppa</i><br>cup   |
| 39. hear              | <i>hēra / hōra</i>       | <i>hearre</i>                       | <i>heere</i>                         | * <i>hauzjanan</i>                          |
| 40. heart             | <i>herte / hirse</i>     | <i>hert</i>                         | <i>haat</i>                          | * <i>hertōn</i>                             |
| 41. horn              | <i>horn</i>              | <i>hoarn</i>                        | <i>houden</i>                        | * <i>hurnan</i>                             |
| 42. I                 | <i>ek / ic</i>           | <i>ik / ikke</i>                    | <i>ik</i>                            | * <i>eka</i>                                |
| 43. kill              | <i>dēda</i>              | <i>deadzje</i><br><i>deamejtsje</i> | <i>doodmoakje</i><br><i>dooddwoo</i> | * <i>daudaz maga</i>                        |
| 44. knee              | <i>kniu / knē / knī</i>  | <i>knibbel</i>                      | <i>kniebel</i>                       | * <i>knewa</i> " ( <i>bainan</i> )          |
| 45a. know             | <i>kunna</i>             |                                     | <i>kanne</i>                         | * <i>kanna</i>                              |
| 45b. know             | <i>wēt</i> : <i>wita</i> | <i>witte</i>                        | <i>wiete</i>                         | * <i>waita</i>                              |
| 46a. leaf             | <i>bled</i>              | <i>blêd</i>                         | <i>blääd</i>                         | * <i>bladan</i>                             |
| 46b. leaf             | <i>lāf</i>               |                                     | <i>loof / looch</i>                  | * <i>laupan</i>                             |
| 47. lie               | <i>lidz(i)a</i>          | <i>lizze</i>                        | <i>lääše</i>                         | * <i>legjanan</i>                           |
| 48. liver             | <i>livere</i>            | <i>lever</i>                        | <i>liuer</i>                         | * <i>librō</i>                              |
| 49. long              | <i>long / lang</i>       | <i>lang</i>                         | <i>loang</i>                         | * <i>langaz</i>                             |
| 50. louse             |                          | <i>lús</i>                          | <i>luus</i>                          | * <i>lūsaz</i>                              |
| 51a. man              | <i>man(n)</i>            | <i>man</i>                          | <i>mon</i>                           | * <i>manōn-</i>                             |
| 51b. man              |                          |                                     | <i>käärel</i>                        | * <i>ka/erlaz</i>                           |
| 52a. many             | <i>felo / ful</i>        |                                     | <i>fuul</i>                          | * <i>felu</i>                               |
| 52b. many             | <i>manich / monich</i>   |                                     |                                      | * <i>managaz</i> ~ * <i>manigaz</i>         |
| 52c. many             |                          | <i>gâns</i>                         |                                      | ?Goth. <i>gansjan</i><br>to cause           |
| 53a. meat             | <i>flēsk</i>             | <i>fleis</i>                        | <i>flaask</i>                        | * <i>flaiskaz</i>                           |
| 54. moon              | <i>mōna</i>              | <i>moanne</i>                       | <i>moune</i>                         | * <i>mēnōn</i>                              |
| 55. mountain          | <i>berch</i>             | <i>berch</i>                        | <i>bierich &amp; bairch</i>          | * <i>bergaz/-a</i> "                        |

|                       | Old Frisian            | West Frisian      | East Frisian: Sater     | proto-Germanic                                    |
|-----------------------|------------------------|-------------------|-------------------------|---|
| 56a. mouth            | <i>mūth</i>            |                   | <i>mündelk mündlich</i> | * <i>munþaz</i>                                   |
| 56b. mouth            | <i>mūla</i>            | <i>mūle</i>       | <i>mule</i>             | * <i>mūlōn</i>                                    |
| 56c. mouth            | <i>snabba</i>          |                   |                         | * <i>snabbōn</i>                                  |
| 57. name              | <i>nama / noma</i>     | <i>namme</i>      | <i>noome</i>            | * <i>namōn</i>                                    |
| 58. neck              | <i>hals</i>            | <i>hals</i>       | <i>hoals</i>            | * <i>halsaz</i>                                   |
| 59. new               | <i>nīe</i>             | <i>nij</i>        | <i>nāi</i>              | * <i>neujaz</i>                                   |
| 60. night             | <i>nacht</i>           | <i>nacht</i>      | <i>noacht</i>           | * <i>nahtz</i>                                    |
| 61. nose              | <i>nose</i>            | <i>noas</i>       | <i>nooše</i>            | * <i>nasō</i>                                     |
| 62a. not              | <i>ni / ne</i>         | <i>né</i>         | <i>nì</i>               | * <i>nī(t)</i>                                    |
| 63. one m.<br>f. & n. | <i>ān / ēn / on</i>    | <i>ien</i>        | <i>aan<br/>een</i>      | * <i>ainaz</i>                                    |
| 64a. person           | <i>mann / monn</i>     |                   |                         |   |
| 64aa. person          | <i>manniska</i>        | <i>minske</i>     | <i>moanske</i>          | * <i>manniskaz</i>                                |
| 65. rain n.           | <i>rein</i>            | <i>rein</i>       | <i>rien</i>             | * <i>regnaz/-a<sup>n</sup></i>                    |
| 66. red               | <i>rād</i>             | <i>read</i>       | <i>rood</i>             | * <i>raidō</i>                                    |
| 67a. road             | <i>wei</i>             | <i>wei</i>        | <i>wai / pl. weege</i>  | * <i>wegaz</i>                                    |
| 67c. road             |                        |                   | <i>stig</i>             | * <i>staigō</i>                                   |
| 67d. road             | <i>(forda ford)</i>    | <i>fuort</i>      |                         | * <i>furdōn</i>                                   |
| 68a. root             |                        |                   |                         | * <i>wrōtiz</i>                                   |
| 68ab. root            | <i>wortele</i>         | <i>woartel</i>    | <i>wüttel</i>           | * <i>wurti-waluz</i>                              |
| 69a. round            | <i>trind</i>           |                   |                         | * <i>trendaz</i><br>cf. OE. <i>trendel</i> circle |
| 69b. round            |                        | <i>roun</i>       | <i>ründ</i>             | < G. <i>rund</i> < F.                             |
| 70. sand              | <i>sand / sond</i>     | <i>sân</i>        | <i>sound</i>            | * <i>sandaz/-an</i>                               |
| 71a. say              | <i>sedza / sega</i>    | <i>sizze</i>      | <i>soagje</i>           | * <i>sagjanan</i>                                 |
| 71b. say              |                        |                   | <i>snide</i>            |   |
| 72. see               | <i>sia</i>             | <i>sjen</i>       | <i>sjoo</i>             | * <i>sehwanan</i>                                 |
| 73a. seed             | <i>sēd</i>             | <i>sie(d)</i>     | <i>säid</i>             | * <i>sēdiz</i>                                    |
| 74. sit               | <i>sitta</i>           | <i>sitte</i>      |                         | * <i>setjanan</i>                                 |
| 75a. skin             | <i>hēd</i>             | <i>hūd</i>        | <i>häid</i>             | * <i>hūdiz</i>                                    |
| 75b. skin             | <i>(skene bark)</i>    |                   |                         | * <i>skinþ-</i>                                   |
| 75c. skin             | <i>fell</i>            | <i>fel</i>        | <i>fāl</i>              | * <i>fellan</i>                                   |
| 75cd. skin            | <i>filmene</i>         |                   |                         | * <i>felmaz</i>                                   |
| 76. sleep             | <i>slēpa</i>           | <i>sliepe</i>     | <i>släipe</i>           | * <i>slēpanan</i>                                 |
| 77a. small            | <i>lūtik / littich</i> | <i>lyts</i>       | <i>litje</i>            | * <i>luttjaz</i> / * <i>luttiz</i>                |
| 77b. small            | <i>klēne</i>           |                   | <i>(kleen fein)</i>     | * <i>klainiz</i>                                  |
| 77c. small            | <i>smel</i>            |                   |                         | * <i>smalaz</i>                                   |
| 77d. small            |                        |                   | <i>mīnnelk</i>          | * <i>mīnniz</i> less                              |
| 77e. small            |                        | <i>bihindlich</i> |                         |   |
| 78a. smoke            | <i>rēk</i>             | <i>reek</i>       | <i>rook</i>             | * <i>raukiz</i>                                   |
| 79. stand             | <i>stonda</i>          | <i>steat</i>      | <i>steen</i>            | * <i>stainaz</i>                                  |
| 80. star              | <i>stēra</i>           | <i>stjer</i>      | <i>stiern</i>           | * <i>sternōn</i>                                  |
| 81. stone             | <i>stēn</i>            | <i>stainaz</i>    | <i>steen</i>            | * <i>stēn<sup>m</sup></i>                         |
| 82. sun               | <i>sunne</i>           | <i>sinne</i>      | <i>sünne</i>            | * <i>sunnōn</i>                                   |
| 83a. swim             | <i>swimma</i>          | <i>swimme</i>     | <i>swimme</i>           | * <i>swemmar<sup>m</sup></i>                      |

|                       | Old Frisian                            | West Frisian      | East Frisian: Sater                  | proto-Germanic                                  |
|-----------------------|--|-------------------|--------------------------------------|---|
| 84. tail              | <i>stert</i>                           | <i>sturt</i>      | <i>stäit</i>                         | * <i>stertaz</i>                                |
| 85. that m.<br>n.     | <i>jen(e)</i><br><i>thet</i>           | <i>dy</i>         | <i>jüns</i>                          | * <i>jainaz</i> /* <i>jenaz</i><br>* <i>þat</i> |
| 86. this m.<br>n.     | <i>this / thius</i>                    | <i>dizze</i>      | <i>disse/düsse</i><br><i>düt/düt</i> | * <i>þai</i><br>* <i>þat</i>                    |
| 87. thou              | <i>thū</i>                             | <i>dou / dü</i>   | <i>du</i>                            | * <i>þū</i>                                     |
| 88. tongue            | <i>tunge / tonge</i>                   | <i>tonge</i>      | <i>tüнге</i>                         | * <i>tungōn</i>                                 |
| 89a. tooth            | <i>tōth</i>                            |                   |                                      | * <i>tanþuz</i>                                 |
| 89ab. tooth           |  | <i>tosk</i>       | <i>tusk</i>                          | * <i>runþskaz</i>                               |
| 90a. tree             | <i>bām</i>                             | <i>beam</i>       | <i>boom</i>                          | * <i>baumaz</i>                                 |
| 90b. tree             | <i>trē</i>                             |                   |                                      | * <i>trewan</i>                                 |
| 91. two m.<br>f. & n. | <i>twēne</i>                           | <i>twa</i>        | <i>twäin</i><br><i>twoo</i>          | * <i>twajina</i><br>* <i>twō(u)</i>             |
| 92a. walk             | <i>gunga / gonga</i>                   |                   | <i>güнге</i>                         | * <i>ganganan</i>                               |
| 92a. walk             | <i>gān</i>                             |                   |                                      | * <i>gēnan</i>                                  |
| 92c. walk             |  |                   | <i>loope</i>                         | * <i>hlaupanan</i>                              |
| 92d. walk             |  | <i>rinne</i>      |                                      | * <i>rennanan</i>                               |
| 93a. warm             | <i>warm</i>                            | <i>waerm</i>      | <i>woorm</i>                         | * <i>warmaz</i>                                 |
| 93b. warm             | <i>hēt</i>                             | <i>hjit</i>       |                                      | * <i>haitaz</i>                                 |
| 94a. water            | <i>water / weter /-ir</i>              | <i>wetter</i>     | <i>woater</i>                        | * <i>watar</i>                                  |
| 94b. water            | <i>ā / ē</i> (stream, river,<br>water) |                   |                                      | * <i>axwō</i>                                   |
| 95. we                | <i>wi</i>                              | <i>wy</i>         | <i>wi</i>                            | * <i>wīz</i>                                    |
| 96. what              | <i>hwet</i>                            | <i>hwat</i>       | <i>wät</i>                           | * <i>xwat</i>                                   |
| 97. white             | <i>hwīt</i>                            | <i>wyt</i>        | <i>wit</i>                           | * <i>xwītaz</i>                                 |
| 98a. who              | <i>hwā</i>                             | <i>hwa / hwāt</i> |                                      | * <i>xwaz</i>                                   |
| 98ac. who             |  |                   | <i>wāl</i>                           | * <i>xwa-l-</i>                                 |
| 99a. woman            | <i>wīf</i>                             |                   | <i>wiu</i>                           | * <i>wīban</i>                                  |
| 99b. woman            |  | <i>frou</i>       |                                      | * <i>frawjōn</i>                                |
| 100. yellow           |  | <i>giel</i>       | <i>jeel</i>                          | * <i>gelwaz</i>                                 |

## NORTH FRISIAN DIALECTS

|           | Mooring       | Hallig           | Föhring      | Hoolm         | Hooring       | Sylte         | pGermanic          |
|-----------|---------------|------------------|--------------|---------------|---------------|---------------|--------------------|
| 1. all    | <i>åål</i>    | <i>altomaole</i> | <i>ale</i>   | <i>al(e)</i>  | <i>Aal(e)</i> | <i>al</i>     | * <i>allaz</i>     |
| 2. ashes  | <i>eesch</i>  | <i>eesk</i>      | <i>eesk</i>  | <i>eesch</i>  | <i>eesch</i>  | <i>eesken</i> | * <i>askōn</i>     |
| 3a. bark  | <i>rin</i>    | <i>rin</i>       | <i>rinj</i>  | <i>rin</i>    | <i>rin</i>    | <i>rinj</i>   | * <i>rendō(n)</i>  |
| 3b. bark  | <i>buurk</i>  |                  | <i>buark</i> |               |               |               | * <i>barkuz</i>    |
| 4a. belly | <i>buuke</i>  | <i>buuk</i>      | <i>bük</i>   | <i>bük</i>    |               | <i>bük</i>    | * <i>bükaz</i>     |
| 4b. belly | <i>lif</i>    |                  | <i>lif</i>   |               | <i>lif</i>    |               | * <i>līban</i>     |
| 4c. belly | <i>bale</i>   |                  |              |               |               |               | * <i>balgiz</i>    |
| 5. big    | <i>grut</i>   | <i>grot</i>      | <i>grat</i>  | <i>gråt</i>   | <i>grot</i>   | <i>gurt</i>   | * <i>grautaz</i>   |
| 6. bird   | <i>föögel</i> | <i>fügel</i>     | <i>fögel</i> | <i>föögel</i> | <i>föögel</i> | <i>fügel</i>  | * <i>f(l)uglaz</i> |
| 7. bite   | <i>bite</i>   | <i>bite</i>      | <i>bitj</i>  | <i>bite</i>   | <i>bite</i>   | <i>bit</i>    | * <i>bītanan</i>   |
| 8. black  | <i>suurt</i>  | <i>süürt</i>     | <i>suart</i> | <i>suurt</i>  | <i>suurt</i>  | <i>suurt</i>  | * <i>swartaz</i>   |
| 9. blood  | <i>blōdj</i>  | <i>blööd</i>     | <i>blud</i>  | <i>bloud</i>  | <i>bloud</i>  | <i>blör</i>   | * <i>blōdan</i>    |
| 10a. bone | <i>biinj</i>  | <i>bian</i>      | <i>bian</i>  | <i>biin</i>   | <i>biin</i>   | <i>biin</i>   | * <i>bainan</i>    |

|                       |                         |                  |                        |                        |                         |                   |                         |
|-----------------------|-------------------------|------------------|------------------------|------------------------|-------------------------|-------------------|-------------------------|
| 10b. bone             | <i>knooke</i>           | <i>knaake</i>    | <i>knook</i>           | <i>knooke</i>          | <i>knââke</i>           | <i>knaak</i>      | * <i>knukōn</i>         |
| 11. breast            | <i>burst</i>            | <i>borst</i>     | <i>brast</i>           | <i>burst</i>           | <i>borst</i>            | <i>brest</i>      | * <i>brustiz</i>        |
| 12a. burn             | <i>brâne</i>            | <i>boorne</i>    | <i>braan</i>           | <i>bârne</i>           | <i>barne</i>            | <i>bren</i>       | * <i>brennanan</i>      |
| 12b. burn             | <i>swise</i>            |                  | <i>swiis</i>           |                        |                         |                   |                         |
| 13. claw              | <i>klau</i>             | <i>klau</i>      | <i>klau</i>            | <i>klää pl.</i>        | <i>klää pl.</i>         | -                 | * <i>klēwō / *klōwō</i> |
| 14a. cloud            | <i>woolken</i>          | <i>wolk</i>      |                        | <i>wulk</i>            | <i>wulk</i>             | -                 | * <i>wulk(a)nan</i>     |
| 14b. cloud            |                         |                  | <i>swark</i>           |                        |                         |                   |                         |
| 15a. cold             | <i>kōlj / koul</i>      | <i>kööl</i>      | <i>kul</i>             | <i>koul</i>            | <i>koul</i>             | <i>kuul</i>       | * <i>kaldaz</i>         |
| 15c. cold             |                         |                  | <i>ias</i>             |                        |                         |                   | * <i>īsaz</i>           |
| 16. come              | <i>kaame</i>            | <i>kame</i>      | <i>kem</i>             | <i>kââme</i>           | <i>kaame</i>            | <i>kum</i>        | * <i>kwemanan</i>       |
| 17a. die              | <i>stârwe</i>           | <i>steerwe</i>   | <i>sterew</i>          | <i>steerwe</i>         | <i>steerwe</i>          | <i>sterev</i>     | * <i>sterbanan</i>      |
| 17b. die              | <i>düüdj<br/>bliwe</i>  |                  |                        |                        |                         |                   |                         |
| 18. dog               | <i>hün</i>              | <i>hun</i>       | <i>hünj</i>            | <i>hün</i>             | <i>hün'</i>             | <i>hün</i>        | * <i>hundaz</i>         |
| 19. drink             | <i>drainke</i>          | <i>drinke</i>    | <i>drank</i>           | <i>drânke</i>          | <i>drânke</i>           | <i>drink</i>      | * <i>drenkanan</i>      |
| 20a. dry              |                         | <i>druch</i>     | <i>drüg</i>            | <i>drüge</i>           | <i>drüge</i>            | <i>drügi</i>      | * <i>draugiz</i>        |
| 20b. dry              | <i>dur</i>              |                  | <i>dör</i>             |                        |                         |                   | * <i>purzüz</i>         |
| 21. ear               | <i>uur</i>              | <i>uur</i>       | <i>uar</i>             | <i>uur</i>             | <i>uur</i>              | <i>uar</i>        | * <i>auzōn</i>          |
| 22. earth             | <i>jard</i>             | <i>eerde</i>     | <i>eerd</i>            | <i>eerde</i>           | <i>eerde</i>            | <i>öört</i>       | * <i>erbō</i>           |
| 23. eat               | <i>ääse</i>             | <i>ää'se</i>     | <i>iidj</i>            | <i>ääe</i>             | <i>äity</i>             | <i>iit</i>        | * <i>etanan</i>         |
| 24. egg               | <i>oi</i>               | <i>oi</i>        | <i>ai</i>              | <i>oi</i>              | <i>ai</i>               | <i>ai</i>         | * <i>ajjaz</i>          |
| 25. eye               | <i>uug</i>              | <i>uuch</i>      | <i>uug</i>             | <i>uug</i>             | <i>uuch</i>             | <i>oog</i>        | * <i>augōn</i>          |
| 26a. fat <sub>s</sub> | <i>smeer</i>            |                  |                        | <i>smeer</i>           | <i>smeer</i>            | <i>smöör</i>      | * <i>smerwan/-ōn</i>    |
| 26b. fat <sub>s</sub> | <i>(fât adj.)</i>       | <i>faot</i>      | <i>feet</i>            | <i>(fât adj.)</i>      | <i>(faat adj.)</i>      | <i>fat</i>        | * <i>faitaz</i>         |
| 27a. feather          | <i>fääder</i>           | <i>feere</i>     | <i>feeler</i>          | <i>feer</i>            | <i>fäär</i>             | <i>feöder</i>     | * <i>febrō</i>          |
| 28b. fire             | <i>iilj</i>             | <i>ial</i>       | <i>ial</i>             | <i>iil</i>             | <i>iil</i>              | <i>jöl'</i>       | * <i>ailidaz</i>        |
| 29. fish              | <i>fasch</i>            | <i>faske</i>     | <i>fask</i>            | <i>fasch</i>           | <i>fasch</i>            | <i>fesk</i>       | * <i>fiskaz</i>         |
| 30. fly <sub>v</sub>  | <i>fliinj</i>           | <i>fliine</i>    | <i>flä</i>             | <i>fliin</i>           | <i>fliin</i>            | <i>flō</i>        | * <i>fleuganan</i>      |
| 31. foot              | <i>fōtj</i>             | <i>fōöt</i>      | <i>fut</i>             | <i>fout</i>            | <i>fout</i>             | <i>fut</i>        | * <i>fōtz ~ *fōtuz</i>  |
| 32. full              | <i>ful</i>              | <i>fol</i>       | <i>fol</i>             | <i>ful</i>             | <i>fol</i>              | <i>fol</i>        | * <i>fullaz</i>         |
| 33a. give             | <i>jeewe</i>            | <i>jeewe</i>     | <i>jiiw</i>            | <i>jeewe</i>           | <i>jeew e</i>           |                   | * <i>gebanan</i>        |
| 33b. give             | <i>düünj</i>            | <i>düüne</i>     | <i>du</i>              | <i>duun</i>            | <i>duun</i>             | <i>dō</i>         | * <i>dōnan</i>          |
| 34. good              | <i>gōdj</i>             | <i>gōöd</i>      | <i>gud</i>             | <i>goud</i>            | <i>goud</i>             | <i>gur</i>        | * <i>gōdaz</i>          |
| 35. green             | <i>gräin</i>            | <i>green</i>     | <i>greene</i>          | <i>green</i>           | <i>gräin</i>            | <i>green</i>      | * <i>grōniz</i>         |
| 36. hair              | <i>häär</i>             | <i>heer</i>      | <i>hiar</i>            | <i>heer</i>            | <i>häär</i>             | <i>hiir</i>       | * <i>hēran</i>          |
| 37. hand              | <i>hōnj</i>             | <i>hōön</i>      | <i>hun</i>             | <i>houn</i>            | <i>houn</i>             | <i>hun'</i>       | * <i>handuz</i>         |
| 38a. head             | <i>hood</i>             | <i>hääd</i>      | <i>hood</i>            | <i>haud</i>            | <i>haud</i>             | <i>haur</i>       | * <i>habudan</i>        |
| 39. hear              | <i>hiire</i>            | <i>hiire</i>     | <i>hiar</i>            | <i>hiire</i>           | <i>hiire</i>            | <i>hiir</i>       | * <i>hauzjanan</i>      |
| 40. heart             | <i>hart</i>             | <i>härt</i>      | <i>hart</i>            | <i>härt</i>            | <i>härt</i>             | <i>hart</i>       | * <i>hertōn</i>         |
| 41. horn              | <i>horn</i>             | <i>hōörn</i>     | <i>hurn</i>            | <i>hoorn</i>           | <i>hoorn</i>            | <i>huurn</i>      | * <i>hurnan</i>         |
| 42. I                 | <i>ik</i>               | <i>ik</i>        | <i>ik</i>              | <i>ik</i>              | <i>ik</i>               | <i>ik</i>         | * <i>eka</i>            |
| 43. kill              | <i>düüd-<br/>jmääge</i> | <i>duadmaage</i> | <i>duadm-<br/>mage</i> | <i>duud-<br/>määge</i> | <i>duud-<br/>maagge</i> | <i>duar maaki</i> | * <i>daudaz maga</i>    |
| 44. knee              | <i>knäi</i>             | <i>kneeboole</i> | <i>knōbian</i>         | <i>knäiboole</i>       | <i>knäiboole</i>        | <i>kneebiin</i>   | * <i>knewan bainan</i>  |
| 45a. know             | <i>kâne</i>             | <i>kaone</i>     | <i>keen</i>            | <i>kâne</i>            | <i>kaane</i>            | <i>kään</i>       | * <i>kanna</i>          |
| 45b. know             | <i>waase</i>            | <i>wee'e</i>     | <i>wed</i>             | <i>waae</i>            | <i>waae</i>             | <i>weet</i>       | * <i>waita</i>          |

|                       |                          |               |                                     |                          |                          |                         |  |
|-----------------------|--------------------------|---------------|-------------------------------------|--------------------------|--------------------------|-------------------------|--|
| 46a. leaf             | <i>blees</i>             | <i>blää</i>   | <i>bleed</i>                        | <i>blee</i>              | <i>blee</i>              | <i>bleer</i>            | * <i>bladan</i>                                      |
| 46b. leaf             | <i>luuf</i>              | <i>luuf</i>   |                                     | <i>huuf</i>              | <i>luuf</i>              |                         | * <i>laupan</i>                                      |
| 47. lie               | <i>lade</i>              | <i>laie</i>   | <i>lei</i>                          | <i>läie</i>              | <i>lee' e</i>            | <i>lii</i>              | * <i>legjanan</i>                                    |
| 48. liver             | <i>liwer</i>             | <i>liwer</i>  | <i>liwer</i>                        | <i>liwer</i>             | <i>liwer</i>             | <i>liwer</i>            | * <i>librō</i>                                       |
| 49. long              | <i>lung</i>              | <i>long</i>   | <i>lung</i>                         | <i>lung</i>              | <i>long</i>              | <i>lüng</i>             | * <i>langaz</i>                                      |
| 50. louse             | <i>lüs</i>               | <i>lus</i>    | <i>lūs</i>                          | <i>lūs</i>               | <i>lūs</i>               | <i>lüs</i>              | * <i>lūs</i>   |
| 51a. man              | <i>moon</i>              | <i>moon</i>   | <i>maan</i>                         | <i>moon</i>              | <i>moon</i>              | ( <i>man</i> husband)   | * <i>manōn-</i>                                      |
| 51b. man              | <i>kjarls</i>            | <i>keerl</i>  |                                     |                          |                          | <i>kiarel</i>           | * <i>ka/erlaz</i>                                    |
| 51a/b. man            |                          |               | <i>karmen</i>                       |                          |                          | <i>kärming</i>          | * <i>karla-manōn</i>                                 |
| 52. many              | <i>foole</i>             | <i>fole</i>   | <i>föl</i>                          | <i>foole</i>             | <i>fääle</i>             | <i>fül / fuul</i>       | * <i>felu</i>  |
| 53a. meat             | <i>flääsch</i>           | <i>flaask</i> | <i>fleesk</i>                       | <i>flääsch</i>           | <i>flaasch</i>           | ( <i>fleesk</i> grease) | * <i>flaiskaz</i>                                    |
| 53b. meat             |                          |               |                                     |                          |                          | <i>meet</i>             | * <i>matiz</i>                                       |
| 54. moon              | <i>moune</i>             | <i>mööne</i>  | <i>muun</i>                         | <i>moone</i>             | <i>moune</i>             | <i>muun</i>             | * <i>mēnōn</i>                                       |
| 55. mountain          | <i>bärj</i>              | <i>beerch</i> | <i>berig</i>                        | <i>beerj</i>             | <i>beerch</i>            | <i>bärig</i>            | * <i>bergaz/-an</i>                                  |
| 56a. mouth            | <i>müs</i>               | <i>mu</i>     | <i>müs</i><br>dim.<br><i>muntje</i> | <i>müs</i>               | <i>müs</i>               | <i>mür</i>              | * <i>munþaz</i>                                      |
| 57. name              | <i>nom</i>               | <i>noome</i>  | <i>nööm</i>                         | <i>noome</i>             | <i>noome</i>             | <i>noom</i>             | * <i>namōn</i>                                       |
| 58. neck              | <i>håls</i>              | <i>hals</i>   | <i>hals</i>                         | <i>håls</i>              | <i>haals</i>             | -                       | * <i>halsaz</i>                                      |
| 59. new               | <i>nai</i>               | <i>nai</i>    | <i>nei</i>                          | <i>nai</i>               | <i>nai</i>               | <i>nii</i>              | * <i>neujaz</i>                                      |
| 60. night             | <i>nåcht</i>             | <i>naacht</i> | <i>naacht</i>                       | <i>nåcht</i>             | <i>naacht</i>            | <i>nacht</i>            | * <i>nahtz</i>                                       |
| 61. nose              | <i>noos</i>              | <i>nääs</i>   | <i>nöös</i>                         | <i>noos</i>              | <i>nääs</i>              | <i>nöös</i>             | * <i>nasō</i>  |
| 62b. not              | <i>ai</i>                | <i>ee</i>     | <i>ei</i>                           | <i>äi</i>                | <i>äi</i>                | <i>ek</i>               |  |
| 63. one m.<br>f. & n. | <i>ån</i><br><i>iinj</i> | <i>ian</i>    | <i>ian</i>                          | <i>ään</i><br><i>iin</i> | <i>aan</i><br><i>iin</i> | <i>jen</i>              | * <i>ainaz</i>                                       |
| 64. person            | <i>mansche</i>           | <i>mänske</i> | <i>mensk</i>                        | <i>mänsche</i>           | <i>mänsche</i>           | <i>mensk</i>            | * <i>manniskaz</i>                                   |
| 65. rain n.           | <i>rin</i>               | <i>rin</i>    | <i>rin</i>                          | <i>rin</i>               | <i>rin</i>               | <i>riin</i>             | * <i>regnaz/-an</i>                                  |
| 66. red               | <i>rüüdj</i>             | <i>ruad</i>   | <i>ruad</i>                         | <i>ruud</i>              | <i>ruud</i>              | <i>ruar</i>             | * <i>raidō</i>                                       |
| 67a. road/pl.         | <i>wai/weege</i>         | <i>wai</i>    | <i>wai</i>                          | <i>wai/weege</i>         | <i>wai/weege</i>         | <i>wai</i>              | * <i>wegaz</i>                                       |
| 67b. road             |                          |               | <i>doom</i>                         |                          |                          |                         | * <i>dōmaz</i>                                       |
| 68a. root             | <i>rōtj</i>              |               | <i>rut</i> tree-<br>root            | <i>rout</i>              | <i>rout</i>              | <i>röt</i>              | * <i>wrōtiz</i>                                      |
| 68ab. root            |                          | <i>wodel</i>  | <i>wortel</i>                       |                          |                          |                         | * <i>wurti-waluz</i>                                 |
| 69a. round            | <i>trin</i>              | <i>trin</i>   | <i>trinj</i>                        | <i>trin</i>              | <i>trin</i>              | <i>trinj</i>            | * <i>trendaz</i><br>cf. OE. <i>trendel</i><br>circle |
| 70. sand              | <i>sōnj</i>              | <i>sōön</i>   | <i>sun</i>                          | <i>san</i>               | <i>san</i>               | <i>sōn'</i>             | * <i>sandaz/-an</i>                                  |
| 71a. say              | <i>seede</i>             | <i>seede</i>  | <i>sai</i>                          | <i>säie</i>              | <i>säie</i>              | <i>sii</i>              | * <i>sagjanan</i>                                    |
| 72. see               | <i>siinj</i>             | <i>siine</i>  | <i>sä</i>                           | <i>siin</i>              | <i>siin</i>              | <i>se</i>               | * <i>sehwanan</i>                                    |
| 73a. seed             | <i>sädj</i>              | <i>seed</i>   | <i>siad</i>                         | <i>säid</i>              | <i>säid</i>              | <i>siit</i>             | * <i>sēdiz</i>                                       |
| 73b. seed             |                          |               | <i>saamen</i>                       |                          |                          |                         | * <i>sēmōn</i>                                       |
| 74. sit               | <i>sate</i>              | <i>sate</i>   | <i>sat</i>                          | <i>sate</i>              | <i>sate</i>              |                         | * <i>setjanan</i>                                    |
| 75a. skin             | <i>hüd</i>               | <i>hut</i>    | -                                   | <i>hüd</i>               | <i>häid</i>              | <i>hir</i>              | * <i>hüdiz</i>                                       |
| 75b. skin             | <i>schan</i>             | <i>skan</i>   | <i>skan</i>                         | <i>schan</i>             | <i>schan</i>             |                         | * <i>skinþ-</i>                                      |
| 75c. skin             | <i>fal</i>               |               |                                     |                          |                          |                         | * <i>fellan</i>                                      |
| 75d. skin             | <i>bäle</i>              |               |                                     |                          |                          |                         |  |
| 76. sleep             | <i>slaipe</i>            | <i>sleepe</i> | <i>sliap</i>                        | <i>släipe</i>            | <i>släipe</i>            | <i>sliip</i>            | * <i>slēpanan</i>                                    |



|                         |   |   |  |   |   |                |  |
|-------------------------|---|---|--|---|---|----------------|--|
| 77a. small              | <i>latj</i>                                       | <i>lidj</i>                                       | <i>letj</i>                                      | <i>läitj</i>                                      | <i>läitj</i>                                    | <i>litj</i>    | * <i>luttjaz</i> /* <i>luttiz</i>                    |
| 77b. small              |   |   | <i>klian</i>                                     |   |   |                | * <i>klainiz</i>                                     |
| 77f. small              |   |   | <i>hen</i>                                       |   |   |                |  |
| 77g. small              |   |   |  |   |   | <i>sneerig</i> |  |
| 78a. smoke <sub>s</sub> | <i>riik</i>                                       | <i>riak</i>                                       | <i>riak</i>                                      | <i>riik</i>                                       | <i>riik</i>                                     | <i>rook</i>    | * <i>raukiz</i>                                      |
| 78b. smoke <sub>s</sub> |   | <i>kwalm</i>                                      |  |   |   |                | < LG.  |
| 79. stand               | <i>stönje</i>                                     | <i>stööne</i>                                     | <i>stun</i>                                      | <i>stoune</i>                                     | <i>stoune</i>                                   | <i>stuun</i>   | * <i>stainaz</i>                                     |
| 80. star                | <i>stäär</i>                                      | <i>steer</i>                                      | <i>stäär</i>                                     | <i>steer</i>                                      | <i>stäär</i>                                    | <i>stiar</i>   | * <i>sternōn</i>                                     |
| 81. stone               | <i>stiinj</i>                                     | <i>stian</i>                                      | <i>stian</i>                                     | <i>stiin</i>                                      | <i>stiin</i>                                    | <i>stiin</i>   | * <i>stēnan</i>                                      |
| 82. sun                 | <i>san</i>  | <i>son</i>  | <i>san</i>                                       | <i>san</i>  | <i>san</i>                                      | <i>sen</i>     | * <i>sunnōn</i>                                      |
| 83a. swim               | <i>swume</i>                                      | <i>swome</i>                                      | <i>sweem</i>                                     | <i>swume</i>                                      | <i>swome</i>                                    | <i>swume</i>   | * <i>swemmanan</i>                                   |
| 83b. swim               | <i>sile</i>                                       |   |  |   |   |                |  |
| 84. tail                | <i>stjart</i>                                     | <i>steert</i>                                     | <i>stört</i>                                     | <i>steert</i>                                     | <i>steert</i>                                   | <i>stört</i>   | * <i>stertaz</i>                                     |
| 85. that m.<br>f.<br>n. | <i>jüdeer</i><br><i>dideere</i><br><i>di</i>      | <i>ju dir</i><br><i>di dire</i><br><i>dat dir</i> | <i>jüdiar</i><br><i>dediar</i><br><i>detdiar</i> | <i>jü</i><br><i>dideere</i><br><i>datdeer</i>     | <i>jü</i><br><i>didääre</i><br><i>datdär</i>    | <i>didiar</i>  | * <i>jainaz</i> / * <i>jenaz</i><br><br>* <i>þat</i> |
| 86. this m.<br>f.<br>n. | <i>diheere</i><br><i>jüheer</i><br><i>datheer</i> | <i>diidire</i><br><i>judir</i><br><i>datdir</i>   | <i>deheerr</i><br><i>jühir</i><br><i>detheer</i> | <i>diheere</i><br><i>jüheer</i><br><i>datheer</i> | <i>dihääre</i><br><i>jühär</i><br><i>dathär</i> | <i>des/det</i> | * <i>þai</i><br><br>* <i>þat</i>                     |
| 87. thou                | <i>dü</i>   | <i>du</i>   | <i>dü</i>  | <i>dü</i>   | <i>dü</i>                                       | <i>dü</i>      | * <i>þü</i>  |
| 88. tongue              | <i>tung</i>                                       | <i>tong</i>                                       | <i>tong</i>                                      | <i>tung</i>                                       | <i>tong</i>                                     | <i>tung</i>    | * <i>tungōn</i>                                      |
| 89a. tooth              |   |   |  |   |   | <i>ter</i>     | * <i>tanþuz</i>                                      |
| 89b. tooth              | <i>täis</i>                                       | <i>toske</i>                                      | <i>tus</i>                                       | <i>tusch</i>                                      | <i>tosch</i>                                    |                | * <i>tunþskaz</i>                                    |
| 90a. tree               | <i>buum</i>                                       | <i>buum</i>                                       | <i>buum</i>                                      | <i>buum</i>                                       | <i>buum</i>                                     | <i>boom</i>    | * <i>baumaz</i>                                      |
| 91. two m.<br>f. & n.   | <i>twäär</i><br><i>tou</i>                        | <i>tweer</i><br><i>taue</i>                       | <i>tau</i>                                       | <i>tweer</i><br><i>tou</i>                        | <i>twäär</i><br><i>tou</i>                      | <i>tau</i>     | * <i>twajina</i><br>* <i>rwō(u)</i>                  |
| 92a. walk               | <i>gunge</i>                                      | <i>gonge</i>                                      | <i>gung</i>                                      | <i>gunge</i>                                      | <i>gonge</i>                                    | <i>gung</i>    | * <i>ganganan</i>                                    |
| 92b. walk               | <i>luupe</i>                                      |   |  | <i>luupe</i>                                      | <i>luupe</i>                                    |                | * <i>hlaupanan</i>                                   |
| 93. warm                | <i>wurm</i>                                       | <i>woorm</i>                                      | <i>warem</i>                                     | <i>wurm</i>                                       | <i>worm</i>                                     | <i>wārem</i>   | * <i>warmaz</i>                                      |
| 94. water               | <i>wāäder</i>                                     | <i>woor</i>                                       | <i>weeder</i>                                    | <i>wäär</i>                                       | <i>waar</i>                                     | <i>weeter</i>  | * <i>watar</i>                                       |
| 95. we                  | <i>wii</i>  | <i>wi</i>   | <i>wi</i>  | <i>wi</i>   | <i>wi</i>                                       | <i>wü</i>      | * <i>wīz</i>   |
| 96. what                | <i>wat</i>  | <i>wat</i>  | <i>wat</i>                                       | <i>wat</i>  | <i>wat</i>                                      | <i>wat</i>     | * <i>xwat</i>  |
| 97. white               | <i>wit</i>  | <i>wit</i>  | <i>witj</i>                                      | <i>wit</i>  | <i>wit</i>                                      | <i>wit</i>     | * <i>xwītaz</i>                                      |
| 98ab. who               | <i>huum</i>                                       |   |  | <i>huum</i>                                       | <i>hum</i>                                      |                | * <i>xwazmō</i>                                      |
| 98ad. who               |   | <i>hook</i>                                       | <i>hoker</i>                                     |   |   | <i>hoken</i>   | * <i>xwa-</i>  |
| 99a. woman              | <i>wüf/wüset</i>                                  | <i>wufsit</i>                                     | <i>wüf</i>                                       | <i>wüst</i>                                       |   | <i>wüf</i>     | * <i>wīban</i>                                       |
| 99c. woman              |   |   |  |   | <i>mārj</i>                                     |                |  |
| 100. yellow             | <i>gööl</i>                                       | <i>gul</i>  | <i>güül</i>                                      | <i>gööl</i>                                       | <i>gööl</i>                                     | <i>güül</i>    | * <i>gelwaz</i>                                      |

F. = French, Fr. Frisian, G. = Germanic, L = Low, s. = substantive, v. = verb.

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## O LEXIKOSTATISTICKÉ KLASIFIKACI FRÍSKÝCH DIALEKTŮ

Článek přináší podrobný přehled o současných fríských dialektech. Osm z nich bylo analyzováno metodou glottochronologickou: standardní západofríský, saterlandský jako jediný živý reprezentant východofríské větve, a šest idiomů severofríských, tři ostrovní a tři pevninské (pokud je nám známo, je to první pokus o aplikaci glottochronologie na celou frískou větvec západogermánských jazyků). Z našich dat vyplývá, že oddělení severofríské větve započalo ještě před polovinou 10. st., na přelomu 10. a 11. st. už se oddělily i větve západní a východní. Všechny tři větve by měly mít statut samostatných jazyků, jejich vzájemná pozice je přibližně srovnatelná se současnými reprezentanty tří západoslovanských větví, česko-slovenské, lužické a lechické (stranou necháváme fragmentární polabštinu a lexikálně téměř úplně asimilovanou kašubštinu). Severní větvec se rozpadá na konci 13. st. do tří skupin (helgolandský dialekt, jehož lexikální data byla pro nás nedostupná, by zjevně tvořil čtvrtou skupinu): pevninské a dvou ostrovních: severní z ostrova Sylt a jižní na ostrovech Föhr & Amrum a Tindelandských ostrovech. Naše analýza nepotvrdila tradiční řazení dialektu *hallig* z Tindelandských ostrovů k pevninským idiomům.

Petra Novotná  
Ústav jazykovědy a baltistiky  
Filozofická fakulta Masarykovy univerzity  
Arna Nováka 1  
602 00 Brno  
e-mail: petano16@phil.muni.cz

Václav Blažek  
Ústav jazykovědy a baltistiky  
Filozofická fakulta Masarykovy univerzity  
Arna Nováka 1  
602 00 Brno  
e-mail: blazek@phil.muni.cz