The First Grammarian

in the critical eye of modern linguistics

Pavel Vondřička

1 Introduction

People without any deeper knowledge of history tend to think that the “real world” began with their birth and that people in older times were basically barbarians living in a world of limited thought paradigms, determined by lack of scientific knowledge and excess of religious and ideological dogmata, binding their minds. However open-minded we feel today, a closer look at some historical sources can reveal the fact that people in the Middle Ages were actually neither less smart nor less experimenting than we. We may realize that they were often occupied by ideas closely related to those that we consider the greatest discoveries of the 20th century. The creative power of the so called 'common sense' can be well observed in the First Grammatical Treatise (further abbreviated as FGT), an anonymous essay from the 12th century on the fundamentals of phonology and orthography in the context of early adaptation of Latin alphabet for the Icelandic language.

The work of the 'First Grammarian' (further abbreviated as FG) has been thoroughly discussed and analyzed from different points of view and he has gotten undoubtedly much more attention than most of the current scholars. His work has been analyzed in the context of both the contemporary and modern state of research, often without any special excuse for the time and context he lived in. How does he withstand this kind of critics should be presented here. Only the modern point of view will be considered to show how this treatise meets the requirements for a modern research paper.

2 “Modern” aspects of the FGT

In many aspects the FGT reminds of modern research papers, at least on surface, but sometimes even in the depth. These aspects will be discussed in this chapter.

2.1 The method

The most striking feature of the FGT is the method of using minimal oppositional pairs, which has been thoroughly elaborated by the Prague Linguistic Circle in the 20th century. No other use of this method is known in the medieval culture: “No parallels have been found for his use of minimal contrasting pairs; word pairs in other medieval texts were for the purpose of teaching homonyms and homographs.”[1]

The FG managed to find an environment, where the role of the distinctions between the five

1 (Haugen 1972, 76)

traditional indoeuropean vowels *(a, e, i, o, u),* which are all present in Latin as well, and the new vowel qualities (four in Old Icelandic: *ǫ, ę, ø, y*) developed through the process of *umlaut* (mutation) in different Germanic languages[2] becomes obvious through the distinct meaning of similar words:[3]

> Nú mun ek þessa stafi átta, alls engi grein er enn i[*s*] gǫr, á meðal inna sǫmu tveggja samhljóða setja sítt sinn hvern, en sýna ok dœmi gefa, hvé sítt mál gøri hverr þeira við inna sǫmu stafa fullting, í inn sama stað settr hver sem annarr, ok á þann veg svá gefa dœmi of allan þenna bœkling á meða[l] inna líkustu greina, þeira er á stǫfunum verða gǫrvar: *sar, sǫr; ser, sęr; sor, sør; sur, syr.* [4]

The only missing letter (or sound) is *"i"*, which does not make any distinction,[5] as FG himself mentions. In the very same way he presents pairs of distinct words (or word combinantions) where the opposition only arises from the other two distinctions – the *length* (quantity) of the vowel and the *nasality*. Both of them concern all the nine presented vowels (vowel qualities).

Although the distinction of vowel quantity has seldom been marked in medieval manuscripts,[6] the few exceptions and the evidence from scaldic poetry prove the importance of this distinction, besides of the apparently different later development of short and long vowels in Icelandic.

More questionable is the distinction of nasality, which is not mentioned anywhere else. Some scholars in the past had even refused the existence of this feature, but others can easilly point out that the FG had neither the potency to create such an 'imaginary' distinction[7] nor a reason to do it. Anyway, the historical comparative linguistics can prove (and explain) the existence, etymological origin and phonetical influence of nasal vowels in exactly the same words (and only those) that the FG mentions as examples,[8] and in addition the later impact of the nasality on futher development of Icelandic,[9] even though it is supposed that this distinction disappeared from the language soon after the FGT was written.

It seems that nasality was not a distinctive feature for short vowels.[10] Even though it is not sure how well the scribers copied the original text, it doesn't seem like the combination of both nasal and length mark was ever used in the original text either. The FG doesn't even show the need to

2 (Iversen 1946, 10)
3 It is the combination *s_r,* which makes meaningful words with all the vowels except of *'i'*.
4 (Haugen 1972, 16) Actually, all the words have long root vowels, but they are not marked in any way, because the FG haven't introduced the distinction of the vowel length (and the accent mark) at this point yet.
5 At least not for the currently discussed need of the four new vowels, as stated by Hreinn Benediktsson. (Benediktsson 1971, 118) Anyway, there is no word "sír" in Icelandic.
6 It was actually usually not marked in Latin orthography either. (Benediktsson 1971, 137)
7 (Haugen 1972, 38 and Benediktsson 1971, 137)
8 See (Haugen 1972, 38-39). In addition to historical linguistics, there are still remains of nasal vowels on the same basis in certain modern Swedish dialects.
9 Namely e.g. the distinct mergers of the long *oral* ǭ with á, but the long *nasal* ǭ with ó. (Benediktsson 2002, 71-74 or Karlsson 2000, 23)
10 (Benediktsson 1971, 134-136)

explicitly distinguish the combination of the distinctive features of nasality and length together. It seems also possible, that he only intended his diacritics to be used for marking (distinguishing) ambiguos cases of homonymy, not to be used necessarily everywhere and all the time.[11]

In terms of what we would call *substitution* of vowels today, he also constructs *minimal pairs* of words to show, how only the change of the different vowel qualities and the vowel quantity can change the meaning of words. The purpose is similar to the purpose of the structuralists – to show the *function* of the dictinct features for the meaning of the discourse. However, his aim is not an abstract analysis of the language, but a very practical argumentation for the suggested change of orthography.

2.2 Systematization and pragmatism

The attempt to introduce a systematic and standardized orthography is a feature that fits very well into modern times too. As said before, it is not sure whether the FG wanted to use all his diacritics generally or just as a device of distinction af ambiguous cases. But he seems to think very pragmatically and also realistic, so that even if he wanted a consequent orthography, he probably had some idea about what was possible to achieve in his time and what was impossible.

The treatise begins with an introduction of the situation in Europe generally, and especially in England – a country with a similar (or "same"!) language but a more advanced written tradition, and presents its aims clearly:

> Nú eptir þeira dœmum, alls vér erum einnar tungu, þó at gǫrzk hafi mjǫk ǫnnur tveggja eða nǫkkut báðar, til þess at hœgra verði at ríta ok lesa, sem nú tíðisk ok á þessu landi, bæði lǫg ok áttvísi eða þýðingar helgar, eða svá þau in spakligu frœði, er Ari Þórgilsson hefir á bœkr sett af skynsamligu viti, þá hefi ek og ritit oss íslendingum stafróf, bæði latínustǫfum ǫllum þeim er mér þótti gegna til várs máls vel, svá at rétt ræðir mætti verða, ok þeim ǫðrum, er mér þótti í þurfa at vera, en ór váru teknir þeir, er eigi gegna atkvæðum várrar tungu.[12]

The treatise aims also at adapting the Latin alphabet to the needs of Icelandic language, i.e. extend the repertoire of letters where necessary and reduce it where there is no use for the Latin letters or where there is another, more natural way to record the given Icelandic sounds. The most important point is the *function* of the letters – whether the meaning of the discourse relies on the use of distinct letter or not:

---

11 See (Haugen 1972, 58-59). It is interesting to notice that Hreinn Benediktsson adds the combination of both a dot and accents to the relevant vowels in his diplomatic edition of the FGT (Benediktsson 1971, 220-221), while Einar Haugen (in his normalized edition) doesn't (Haugen 1972, 18-19). The combination is nowhere present in the actual manuscript.

12 (Haugen 1972, 12)

En þó at allir mætti nọkkut rétt ór gøra, þá er þó vís ván, at þeygi vili allir til eins fœra, ef máli skiptir allra helzt í lọgum. Enda tel ek þik þá eigi hafa vel svarat, er þú lætr eigi þurfa í váru máli þessa níu raddarstafi: *a, ǫ, e, ę, i, o, ø, u, y,* allra helzt ef ek klýf ór þessum níu sex greinir ins fjórða tegar, þær er sítt mál gøri hverr, ef gløggt eru skildar.[13]

The expression "skipta máli" *(change the discourse/meaning)* is the main argument of the whole treatise, and written documents should therefore follow all the necessary distinctions in the language. The law is named as the most important example of a domain, where the unambiguous interpretation of the discourse (literally *every* word) is of highest importance.

Another very pragmatical argument is the effort for the highest possible efficiency of the new alphabet:

Nú þó at ek hafa mjọk skyndilika mælt um họfuðstafanna rit, þeira er fyr tvá skal einn vera, þá kalla ek eigi rangt né illa ritit, þó at hinir tveir sé þar heldr ritnir, er hvárgi er họfuðstafr, er þó vilja ek heldr einn staf ríta, þar sem bæði stoðar jafnmikit einn ok [tveir], til þess, sem ek sagða, at rit verði minna ok skjótara ok bókfell drjúgara.[14]

A faithful reflection of the key principles, features and distinctions of the vernacular language in the spelling of the written language is the main goal of the FG. He wants to have the written language as faithful and functional as the spoken language, while keeping the written language as effective and economical as possible at the same time.

2.3 Argumentation and exemplification

The FG doesn't rely on any kind of authority or dogmatics. He uses common sense to make the best use of his education in a new environment: the domain of his own mother tongue. He uses practical arguments and supports them by essential examples, that could be (mostly) accepted as sufficient even in the 20th century, as shown above.

Besides of the systematic exemplification, another important modern aspect is an active discussion with diverse opinions and theories. In the case of the FG this is realized in the form of discussion with virtual opponents. The kind of these imaginary opponents has been a matter of discussions too, especially in connection with the question if the FGT was intended as a textbook:

The imaginary adversary who is brought in only to be bowled over with the author's arguments gives more the impression of being a colleague than a pupil. The medieval teaching device of presenting a subject by means of a conversation between master and pupil, exemplified in The King's Mirror in Norway, is not to be found in FGT. [... on the other hand, the author of the Third Grammatical Treatise] states his rules without discussing them, just as one might expect from the author of an elementary textbook. Beginners in the subject would scarcely have appreciated the withering tone that the FG reserves for those who speak on learned matters without knowing what they are about.[15]

13 (Haugen 1972, 14)
14 (Haugen 1972, 30)
15 (Haugen 1972, 5-6)

The fact, that the FGT wasn't intended as a textbook doesn't mean, that it was never used in such way, however.

Another aspect apparently very important today and only partially appearing in the FGT is the use of previous sources, either as authorities or support (proof, in best case) in argumentation. The most famous quotation is probably the quotation of a scaldic half-strophe from the early 11th century, where the word *iarn* (or rather *earn,* according to the FG) has to be pronounced in two syllables. He argues that the first vowel must be pronounced rather as 'e' than 'i', in that case. This cannot be proved today, because the meter itself doesn't show the quality of the vowel.[16] Anyway, this is actually the same problem that modern phonemicist have difficulties with[17] and in the current state of pronunciation at the times of the FG it seems quite irrelevant.[18] Another example of use of 'resources' in the FGT may be even more disputable and will be mentioned later.

Even though the exemplification in the FGT is not always exact enough and his argumentation can't really meet the modern scholar requirements all the time, he is clearly not in the position of any authority and has to use common sense and argue to enforce his own ideas about the right orthography for Icelandic.

3 Obsolete apects of the FGT

Of course, the FGT can hardly meet all requirements of modern research. Many 'modern' methods he uses are not applied sufficiently, or they are not used in the way that would be considered really 'correct' today. These aspects will be shown here.

3.1 Terminology

The only termilogical classification used in the FGT that survived from the Latin grammars until today without any significant change is probably the distinction of vowels and consonants *(raddarstafr – samhljóðandi)*. The FG cannot be equipped with modern terminology, of course. However, the fact that he uses words and expressions that may sound too 'simple' to us doesn't mean that the concepts behind them are really so simple.

We would hardly find the term 'phoneme' in his essay. However, the term 'letter' *(stafr)* is actually much more complicated than it seems:

16 (Benediktsson 1971, 156)
17 (Haugen 1972, 42)
18 The 'vowel' was actually just a glide at the time and “[i]n his speech there was no phonemic contrast between a high and a mid glide before vowels”. (Haugen 1972, 43)

> En fyr því nú, at sumir samhjóðendr hafa sín líkneski ok nafn ok jartein, en sumir hafa hǫfuðstafs líkneski ok nafn og jartein, en sumir hafa hǫfuðstafs líkneski ok skip[t] stǫfum sumra í nafni ok aukit atkvæði bæði nafns ok jarteinar, en sumir halda líkneski sínu, ok er þó minkat atkvæði nafns þeira, ok jartein sú, er þeir skulu hafa í málinu, skal þeiri lík, er í nafninu verð[r], þá skal nú sýna leita bæði líkneski þeira ok svá nǫfn fyr ofan ritin, at yfir þat megi nú allt saman líta, er áðr var sundrlauslega umrœtt:[19]

The term *stafr* seems to be actually an abstraction over three different aspects: *líkneski, nafn* and *jartein.* The modern word *letter* would be probably most similar to the term *líkneski* (the symbol, or the shape or form of *stafr*). All these three attributes are supposed to be connected in a fixed relationship based on their use in Latin, where they also come from. The whole term *stafr* resembles also somehow the modern term *phoneme*[20] because of its functional perspective and it is no wonder that it is also used in this way in the FGT.

The subject where the modern phoneticians must most certainly tear their hair is probably the description of pronunciation of the vowels. Instead of different articulation features of place, height and roundedness, the only feature distinction made by the FG is the amount of 'openness' of the mouth – probably the only feature observable from outside. A closer look reveals the fact, that at least two different features are bound to this universal scale of the FG:

> *Ǫ* hefir lykkju af *ae,* en hringinn af *oe,* því at hann er af þeira hljóði tveggja saman blandinn, kveðinn minnr opnum munni en *a,* en meirr en *o. Ę* er ritinn með lykkju *as,* en með ǫllum vexti *es,* sem hann er af þeim tveim samfeldr, minnr opnun munni en *a* en meirr en *e. Ø,* hann er af hljóði *es* ok *os* feldr saman, minnr opnum munni kveðinn en [*e*] ok meirr en *o.*[21]

While the difference between *a* and *e* would be called a difference in height (and possibly place, of course), the main difference between *o* and *e* is the feature of roundedness (besides of the place of articulation). Even if we would think of the place, we cannot avoid the height. Both *e* and *o* are less open that *a,* but they are not identical. In addition: *o* is less open than *e.* We still could make a sensible one-dimensional scale of 'openness' from those relations *(a – ę – e – ø – o)*, but than it would be much more practical if the FG set the *ǫ* somewhere more accurately on this scale than just puting it somewhere between *a* and *o,* which are the extremes of this scale. That seems to be somehow impossible for him as well.[22] This relation has also necessarily more dimensions than one, even for him.

The 'terminology' of the FGT may not be completely consistent all the time. The FG had no terms like *phoneme* or *function.* Instead he had to make most use of classical terms from Latin

19 (Haugen 1972, 24)
20 And actually also *grapheme* at the same time, or rather the connection of those two, because the orthography suggested by the FGT is very much phonemic.
21 (Haugen 1972, 14)
22 Taking in consideration his care for precision, we can be sure he would do it, if it was possible.

grammar, translated as *stafr, líkneski, nafn* and *jartein.* For the *function* of a particular letter in discourse he had to use expressions such as *skipta máli, gøra sítt mál* or just the noun *grein. Líkneski* can be also called *vǫxtr. Jartein* can be called *hljóð* or *atkvæði.* Even Einar Haugen admits that these terms are not completely identical,[23] but Hreinn Benediktsson argues for very fine distinctions in the meaning of these words to be kept, which are in their complexity comparable to the most advanced terminological crooks in modern humanities.[24]

The terminology of the FGT is not as simple and confused as it may seem at the first sight. It is based on classical Latin grammars and their theories, which were not as detailed and deeply elaborated at those times as the modern linguistic theories are today. The lack of elaborated terms and theories doesn't necessarily imply restrictions in the medieval scholars' ability to make precise observations, though.

3.2 Incompleteness of the description

Completeness of description is another requirement of modern science. It was already noticed that some of the descriptions in the FGT are in some aspects incomplete.

One problem is the strange scale of 'openness' of vowels. For the FG it was probably sufficient to differentiate contrasts between two individual sounds. He did not intend to complete the description of the system as a whole. His purpose was just to make distinctions between pairs of interchangeable sounds reflected in the written form of language. His work should promote a new and better orthography and not teach anybody the right pronunciation of Icelandic vowels.

He also doesn't mention all the contrasts between more complex combinations of the features of nasality and quantity of vowels, as mentioned before. Again, he only shows the necessity to make both these distinctions, but not anymore if all the four variants (combinations of nasality and length) of the nine vowels are really necessary to distinguish as a whole of 36 different letters (as he proudly notes at the beginning[25]).

We do not get much information about the pronunciation of consonants. The reason is again the purpose of the treatise: the FG argues for distinction of short and long consonants and a more economical way of writing the long consonants with small capitals. He doesn't mention at all that some of the consonants (especially *g*) had quite many variant realizations of pronunciation

23 (Haugen 1972, 55 and 60)
24 (Benediktsson 1971, 54-68)
25 See the second quotation in chapter 2.2.

(allophones)[26] as they still have in modern Icelandic.

The most striking contradiction in the FGT is the abolisment of the letter *y* in the later part of the text, while the same letter is suggested for writing the vowel resulting from i-umlaut of *u* (or u-umlaut of *i*). This is usually explained by the nonidentity of these two letters *y*:

> The probable explanation [...] is simply that, in the author's view, the 'y' denoting *y* and the 'Greek y' *(y graeca)* were not the same letter *[stafr]*, in the technical sense of medieval grammar, since two of their three attributes, viz. , the name *[nafn]* and the value *[jartein]*, were clearly different...[27]

Since we don't have the original manuscript of the FGT, we cannot be even sure about the identity of the third attribute, the shape *(líkneski)* of these two letters. Another strange statement about the letter *y* may reveal (besides of his distinction of – possibly – two symbols of the same origin) another possible confusion of *y* with a form of the symbol *v* that was sometimes also used for the umlaut *y,* so that “the tail of the '*y,*' had become nondistinctive.”[28]

Many facts in the treatise are just taken for granted. They mostly arise from the knowledge of Latin grammar which was just given and used as a base for description of all other languages.[29] Many other facts – especially those concerning 'knowledge' of Hebrew – are also presented just as a matter of fact, although they are quite inaccurate or completely wrong. Most of his 'knowledge' (e.g. of languages like Greek or Irish) can be usualy traced back to Latin sources so that the FG did not need to know all the mentioned languages at all, and he probably didn't.[30] As Einar Haugen states: “We are entitled to conclude that his knowledge of these languages was more ornamental than helpful.”[31]

3.3 Discourse

The fact that the FG argues with different imaginary opponents and defends his opinions with arguments is not a sufficient feature in itself for his work to be accepted in the modern world of science. Actually, his disputations are often quite emotional and mostly offensive rather than defensive. Sometimes they even don't end up in the way we would expect.

The FG shows a lot of respect to many of his predecessors. He speaks of the scalds as of highest authorities concerning the art of using and understanding the language: “Skáld eru hǫfundar

26 (Karlsson 2000, 27-29)
27 (Benediktsson 1971, 92-93)
28 (Benediktsson 1971, 94) More detailed description of the complicated situation in the early Icelandic manuscripts is presented here (Benediktsson 1971, 92-97) and in (Haugen 1972, 66-70)
29 This did not change very much until the 20th century, actually.
30 (Haugen 1972, 74)
31 (Haugen 1972, 74)

allrar rýnni eða málsgreinar, sem smiðir [smíðar] eða lǫgmenn laga."[32] He probably doesn't even think of critisizing their works.

The most suprising 'argument' comes at the end of the chapter about vowels, where the FG tries to enforce his belief that the Icelandic word for *iron* must be pronounced – and therefore also written – as *earn* and not *iarn*. One would expect that his quotation of the scaldic half-strophe[33] would be sufficient (for him at least), even though the verses do not really proof the quality of the vowel, and he can not be sure about the 'right' (original?) pronunciation of the vowel in this more than hundred years older poem. Anyway, he still relies on the written form how the strophe had been preserved until his times, and he still tries to defend it against any possible objections (i.e. objections against the skald, not against his own interpretation!):

> Nú þó at kveðandin skyldi hann til at slíta eina samstǫfu í sundr ok gøra tvær ór, til þess at kveðandi haldisk í hætti, þá rak hann þó engi nauðr til þess at skipta stǫfunum ok hafa *e* fyr *i*, ef heldr ætti *i* at vera en *e*, þó at mér lítisk eigi at því. En ef nǫkkurr verðr svá einmáll eða hjámáll, at hann mælir á mót svá mǫrgum mǫnnum skynsǫmum, sem bæði létusk sjálfir kveða þetta orð, áðr ek reit þat, ok svá heyra aðra menn kveða, sem nú er ritit, ok þú lætr *i* skulu kveða, en eigi *e*, þó at þat orð sé í tvær samstǫfur deilt, þá vil ek hafa ástráð Cátónis, þat er hann réð syni sínum í versum: [...] þat er svá at skilja: hirð eigi þú at þræta við málrófsmenn; málróf er gefit mǫrgum, en spekin fám.

The FG takes for granted that "all the wise menn" (and "other menn") self declare their pronunciation of the vowel as it "is written". Than he calls for the presumptuous person that would still dare to impugn the verdict of those "wise menn". The reader is now probably expecting the major argument that would calm down any dubts to come. Instead, a personal offence of the virtual opponents follows in the form of a classical Latin quotation, saying mildly that there is no point in quarreling with fools.

Although the FG argues for saving single letters, to write less and let the parchment last longer, he doesn't really save neither letters, nor words, nor whole sentences, when it comes to arguing with his 'unwise' opponents. On the last page of the FGT in the manuscript he uses more than 10 lines[34] for meaningless quarelling with an imaginary opponent that would try to refuse the need for distinguishing long and short consonants completely. After this enormous introduction he finally lists his examples of minimal pairs of words distinguished by short and long consonants only – the final proof of the necessity of this distinction – on 2 lines only.[35]

These exposures of subjectivity and emotions have no place in modern scholar works,

32 (Haugen 1972, 74)
33 See chapter 2.3 above.
34 Page 90 of the manuscript, lines 5-16, according to (Haugen 1972, 30) and the facsimile of the manuscript.
35 Lines 16-18 on page nr. 90. A list of sentences using these examples then follows on lines 18-25.

although humour and minor personal allusions are neither forbidden nor disapproved even today. The amount of space the FGT spends on (from our point of view more or less meaningless) arguing may reveal the fact that introducing a reform in orthography in his time probably wasn't any easier than it is today.

4 Conclusion

The general structure of the FGT and the methods used in the treatise remind closely of a modern scholarly essay. The FG concentrates on his main goal, tries to systematize his results and shows on practical examples the need to make the distinctions he suggests as necessary. He doesn't waste space on discussing distinctions of pronunciation that are not significant for his goal, like those we would call allophones today. On the other hand, his methods mislead him often into uncertainity and he shows rather his feelings and emotions towards those who reject his suggestions – and it is not important whether they are just imaginary opponents or whether these discussions are based on real experience of the author. His description can also be called incomplete just because he avoids many details that are probably not so important for him anymore. The style of his work is far from being clean in the modern meaning of the word, and he often drops it a bit more when he runs into his more emotional 'arguments'. Last but not least, he doesn't possess the distinguished terminology of modern linguistics.

In this view the FGT could be called a work of a beginner. From the historical point of view, he is a real beginner, since he stands at the beginning of the written culture in Northern Europe, and in the context of his time he can be called a 'very promising beginner'. As Einar Haugen states: “His phonetics were primitive, his etymologies absurd, and his expectations of his fellow scribes quixotic. But this early synchronist knew the significant distinctions of his native tongue, and he found a way of describing them such that a modern linguist can still make excellent sense of it,”[36] and he also quotates Björn M. Ólsens opinion: “If he had lived in our day, he would undoubtedly have been a distinguished phonetician.”[37]

The ways of expression and customs do change very much in time and make all previous achievements feel obsolete and childish very quickly, often in the scale of days and weeks, not to speak about centuries. Of course, modern knowledge is much more complex and elaborated than it was many hundred years ago. But the ways of human thinking, their possibilities and limits did not

36 (Haugen 1972, 6)
37 (Haugen 1972, 34)

really change so much. If we consider modern scholarly works, we could easilly find many of the very same offences against the requirements for contents and style in an ideal modern research paper, probably even in the works of the most important scientists.

5 Bibliography

Benediktsson, Hreinn. 1971. *The First Grammatical Treatise.* Reykjavík: Institute of Nordic Linguistics.

Benediktsson, Hreinn. 2002. “The Vowel system of Icelandic: A Survey of Its History” In *Linguistic Studies, Historical and Comparative,* edited by Guðrún Þórhallsdóttir et al. Reykjavík: Institute of Linguistics.

Haugen, Einar. 1972. *First Grammatical Treatise. The earliest germanic phonology.* London: Longman. Second, revised edition.

Iversen, Ragnvald. 1946. *Norrøn grammatikk.* Oslo: Aschehoug & co. Fourth, revised edition.

Karlsson, Stefán. 2000. “Tungan.” In *Stafkrókar.* Reykjavík: Stofnun Árna Magnússonar.