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## The Icelandic Consonant Shift in its Germanic Context

#### o. Introduction

In Germanic linguistics, Icelandic is known for its unique consonant system. Yet it has much in common with Danish. Both languages are known for their strong aspiration of stops. Aspiration alone is distinctive, while distinctive voice has been lost, not only for stops but also for fricatives. In this respect, Danish and Icelandic constitute a type within modern Germanic. Both languages are also known for unusual conditions regarding consonant strength. Contrary to the consonants in other Germanic languages, Icelandic and Danish p, t, k of Gmc. origin are known to be lax compared to b, d, g. This may be related to the unusually strong aspiration. But tension, or strength, is not a perceptual feature and hence not a good candidate for a distinctive feature (cf. Goblirsch 1994a). This is where the similarities between the two languages end: the Icelandic quantity system is completely different from Danish. While Danish has lost its long consonants, Icelandic has increased their number. Like most other modern Germanic languages but contrary to Danish, it has reciprocal vowel and consonant length in accented syllables. However, like Swedish and Norwegian, it retained old geminates, lost by the other standard languages, in intervocalic position. In addition, it has distinctive preaspiration of long stops, a trait not shared by other modern standard languages.

What is not so widely known is that Icelandic had a consonant shift. In addition to the first and second consonant shifts, which affected all of Germanic and later High German, respectively, there was a third and even a fourth consonant shift: Danish and Icelandic also had consonant shifts, probably contemporaries of the High German shift. The Danish shift is better known, but only M. I. Steblin-Kamenskij (1960; 1974) has recognized the Icelandic shift. Though not as well described and perhaps not as complete as the changes in Germanic and High German, both are nevertheless shifts in their own right. In fact, Faroese has largely the same consonant system as Icelandic and has also undergone the same development. We could even speak of the Icelandic and Faroese shift. Faroese will be dealt with at the end of this paper. The two Scandinavian shifts, along with the first and the second, share a number of characteristics, which taken together define what a consonant shift is.

### 1. Definition of consonant shifts

Several traits set consonant shifts apart from other consonant changes of similar scope. I have described them in greater detail in another place (Goblirsch 1999a) and will therefore only summarize them here. This summary is the result of a comparative study of the four consonant shifts in Germanic and other highly systematic consonant changes, such as geminations and lenitions, which have at times been called consonant shifts but do not share all the phonetic and phonological criteria necessary for the classification.

All four shifts are part of the general Germanic trend to remove stops from the system. In each of the shifts, the voiceless stops are drawn toward spirantization. The process consists of a number of stages leading in the same direction. The process is most complete in the Germanic shift, mostly complete in the High German shift, less so in Danish, and least of all in Icelandic. The steps along the path are as follows: a voiceless stop is aspirated, aspiration is drawn out into a homorganic fricative to constitute an affricate and lastly, either through assimilation of the stop element to the fricative element or loss of closure following vowels, we end up with a fricative. In the Germanic shift, there are no traces of any other stage but the last. In High German, we have positional alternation of affricates and fricatives. In Danish, we have minimal affrication. And in Icelandic we merely have aspiration, the first stage in the change. The whole trend may be seen as the weakening of consonants according to a hierarchy of strength; the intermediate stages must be seen as progressive weakenings.

The first and rather trivial phonological criterion of consonant shifts is that they are series changes: all obstruents of like manner but of different place of articulation change their manner, so that labials, dentals, velars, and in Icelandic also palatals, change their manner in the same way but retain their place of articulation. This fact has more to do with the structure of the Germanic obstruent system, and obstruent systems in general, than with the shifts themselves: they merely operate on the existing system. Nevertheless, this symmetry is what affords the shifts their highly systematic nature and great scope.

The final three characteristics are telescopic versions of the same requirement. The broadest label for this requirement is rephonologization, one of Jakobson's three types of phonological change, also known as 'shift' in Bloomfieldian terms. In all shifts, the correlation of voice is replaced by the correlation of aspiration: one opposition has been done away with, but a new one has taken its place. More specifically, this process may be described as an exchange of distinctive features (Kurylowicz 1948; Fourquet 1954). But the exchange is not, at least chronologically, a compensation of the loss of voice by the gain of aspiration to maintain the distinction. Rather, aspiration seems to have developed and taken over the distinctive role of voice. Later, nondistinctive voice generally became lost. The change may be described as one in the mark of correlation (Steblin-Kamenskij 1963). In the position of neutralization, most commonly after s- in Germanic, the phonetic substance remains the same, but the phonological identification of the plain stops changes: when voice is distinctive, the plain stops are *voiceless*, but when aspiration becomes distinctive they become unaspirated. As is well known, this change in identification has a phonetic origin: stops cannot be aspirated after spirants. While in the position of neutralization the archiphoneme remains the unmarked member of the opposition, the marked member in the positions of distinction becomes the unmarked member, and vice versa. This formulation of Steblin-Kamenskij summarizes the phonological requirements.

#### 2. Devoicing

Although devoicing is the phonological and phonetic *reaction* to the development of distinctive aspiration, it seems more reasonable to begin with this aspect of the exchange than with the features that replace it in the system. In Icelandic, we find a pattern of voicing that is typical of the languages with the later shifts. The one important exception will be discussed shortly. In recent years, the role of voice in the Germanic obstruent system and thus its age in Northwest Germanic (NWGmc.), the predecessor of Old Icelandic, has been called into question. Theo Vennemann (1984) and Frederik Kortlandt (1988) have, in connection with the glottalic theory of Indo-European, posited distinctive glottali-

zation rather than voice in Proto-Germanic. The theory is, however, lacking in evidence in both Germanic and Indo-European. For further discussion, see Goblirsch 1999b.

Although voice has lost its distinctive role in Icelandic, it is by no means absent in obstruents. While NWGmc. b, d, g are phonologically voiceless, they may be partially or fully voiced medially in a voiced environment. They occur in positions where Gmc.  $\beta$ ,  $\delta$ ,  $\gamma$  gained occlusion in North-West Germanic: initially, following sonorants, and in gemination. Following vowels they remained spirants. In phonetic transcription the stops are represented by voiceless lenes: binda (binda) 'bind', drehga (drekka) 'drink', gou:ðyr (góður) 'good'; kjemba (kemba) 'comb wool' vb., lamb (lamb) 'lamb', bında (binda) 'bind', halda (halda) 'hold', gøyng (göng) 'walk, gait', gab:a (gabba) 'mock', gab: (gabb) 'mockery', nyd:a (nudda) 'massage' vb., nyd: (nudd) 'massage', vag:a (vagga) 'scale', ɛġ: (egg) 'egg' vs. ha:va (hafa) 'have', raiða (ræða) 'speech', sa:va (saga) 'story'. There may also be voicing of the NWGmc. fricatives  $f, \theta, x$  medially in a voiced environment. As in all northern North-West Germanic (Old Norse, Old English, and Old Saxon), there was only one series of fricatives with complementary distribution of voiced and voiceless variants in Old Icelandic. The loss of voicing contrast in fricatives present in Common Germanic was due to the final devoicing of Gmc.  $\beta$ ,  $\delta$ ,  $\gamma$  and the voicing of Gmc.  $f, \theta, x$  medially in a voiced environment (cf. Goblirsch 1999b). Compare the following examples showing the distribution of potential voicing in modern Icelandic reflexes: fa:ra (fara) 'travel', θahga (bakka) 'thank', hu:s (hús) 'house'; ge:va (gefa) 'give', rauða (ráða) 'advise', aiva (eiga) 'own'; gaif (gaf) 'gave', rauð (ráð) 'advice', aix (aih) 'owned'.

The pattern of obstruent voicing outlined here is well attested in the phonetic research on Icelandic; cf. Ófeigsson 1920–24: xviii, Sveinbjörnsson 1933, Kress 1937: 64 ff., Einarsson 1945: 24–25, Pétursson 1976. There is some indication that p, t, k can become voiced in a voiced environment in sandhi (Guðmundsson 1922: 2, Einarsson 1927: 33), but this is less well established. Guðfinnsson (1946: 155–56) reported variation of voice in the southern dialect of the south and the west fjords even in the speech of a given individual. This area is where later lenition has occurred, and we find variation in the strength of stops. Icelanders refer to the speech of the south as *linmæli* as opposed to *harðmæli* in the north. The southern dialect is also where the devoicing of sonorants is possible: preceding formerly opposed stops, which are phonologically both voiceless and unaspirated in this dialect, we have the opposition of voiced versus voiceless sonorants as in *kemba* 'comb' vb. / *kempa* 'champion', henda 'befall' / *henta* 'be suitable for', *banga* vb. 'hammer' / *banka* vb. 'knock'.

While this pattern of fricative voicing and one phonological series of fricatives is widespread in modern Germanic (Danish, Dutch, Low German, High German), the pattern of stop voicing is typical of languages with secondary shifts. For Danish this description is commonplace in the literature. For High German, it is generally reported that voice is completely absent in obstruents, but the rich dialect literature reveals the contrary. Cf. Fischer-Jørgensen (1966) on Danish and Goblirsch (1994b: 25–29) on High German. Positional occurrence is what one would expect of a nondistinctive feature which has been superseded by another feature, aspiration in this case. The superseded feature is optional, varies in strength, and may occur where the environment is conducive; it is absent in all other positions.

#### 3. Aspiration

Icelandic has strong aspiration, which is unanimously viewed as distinctive: see Haugen 1941 and 1958, Malone 1952, Steblin-Kamenskij 1960 and 1974, Bothorel-Witz/Pétursson 1972, Pétursson 1976, Löfqvist/ Pétursson 1978, Löfqvist/Yoshioka 1981. But this feature is treated differently in the two dialects. Most descriptions have been devoted to southern Icelandic, since this is the dialect of the majority of speakers. But the north may represent an older stage in the development of the language and is of more interest in regard to the consonant shift. Some have argued for old aspiration in Common Germanic based on the structure of Germanic loanwords in Finnish (Karsten 1915 and 1926, Wiklund 1917–18, Lindroth 1927; cf. Jacobsohn 1925), but I would argue for unaspirated voiceless stops in Germanic with aspiration coming later at the time of the secondary consonant shifts. This is, I think, when Icelandic gained aspiration, which became distinctive at the expense of Germanic voice.

In the northern dialect of Icelandic, spoken in the north and the east fjords, we find aspiration of simple Gmc. p, t, k in all word positions: initially, medially, and finally. It occurs initially before vowels *and* consonants, which is rare in modern Germanic but also known from Danish and to a lesser extent from Low German. It occurs medially following long vowels and sonorants. Finally, Gmc. b, d, g (following sonorants), as

well as Gmc. p. t. k. may be aspirated. In this position aspiration must be seen as something of a boundary phenomenon along with devoicing. So the distinctive potency of final aspiration is questionable. The pattern of aspiration in the northern dialect was presented by Ófeigsson (1920–24: xviii), Sveinbjörnsson (1933), and Stefán Einarsson (1932), in his description of a dialect of the east fjords. Compare the following examples: phynd (pund) 'pound', tha:pha (tapa) 'lose', kho:ma (koma) 'come'; tha:pha (tapa) 'lose', ga:tha (gata) 'street', tha:kha (taka) 'take'; xjaulpha (hjálpa) 'help', vantha (vanta) 'be absent', baunkha banka 'knock'. Following fricatives, there is no aspiration of the formerly voiceless stops, as in standa 'stand', skaði 'damage', hefta 'fasten'. This is a position of defective distribution, since we only have representatives of one series here. Another defective position is after vowels, because Gmc.  $\beta$ ,  $\delta$ ,  $\gamma$ remained spirants here and cannot be members of an opposition of aspirated/nonaspirated stops. Finally following consonants, where Gmc,  $\beta$ ,  $\partial$ ,  $\gamma$  are stops and may be aspirated along with p, t, k, there is neutralization.

Such a pattern of aspiration is not present anywhere else in modern Germanic. In other languages, aspiration of Germanic voiceless stops has been recorded only initially. However, High German, at one stage of the shift, must have had aspiration in all word positions after the exchange of voice for aspiration. If this is the case, one may draw an important parallel between two areas at the periphery of the Germanic speaking world with later shifts. Danish at the center of the Germanic speaking world did not gain aspiration in medial position. The different utilization of aspiration at the center and at the periphery of the area represents a different distribution of positions of distinction. Danish followed the Germanic tendency to concentrate phonological information on the root syllable to a further degree than Icelandic and High German: the peripheral languages are allowed the use of the opposition of aspiration in positions other than initial, while Danish is not. What separates Icelandic from High German is aspiration even in a position of defective distribution: Pre-High German presumably had stops from Gmc.  $\beta$ ,  $\delta$ ,  $\gamma$ opposed to Gmc. p, t, k in postvocalic position and hence an opposition of voice and later of aspiration. If postvocalic position in Icelandic is viewed as a position of neutralization, we do not have the unmarked member of the opposition as Trubetzkoy expected for a privative opposition. So it is not clear how to treat aspiration following vowels in northern Icelandic.

Southern Icelandic, on the other hand, has no aspiration medially fol-

lowing long vowels or sonorants. Here the stops are transcribed as voiceless lenes: tha:ba (tapa) 'lose', ga:da (gata) 'street', tha:ga (taka) 'take', xjaulba (hjálpa) 'help', vanda (vanta) 'be absent', baunga (banka) 'knock'. A pattern of intial and final aspiration is presented in most phonetic descriptions of Icelandic which are based on the southern dialect: Guðmundsson 1922: 2, Ófeigsson 1920–24: xviii, Einarsson 1927: 33, Sveinbjörnsson 1933, Kress 1963: 28-29. Yet there is no sharp division between the dialects. Hreinn Benediktsson (1961-62) recorded the soft pronunciation not only in the south but also in the speech of individuals in the north. Further, he noted mixed speech in areas of transition between the northern and southern dialects and advance of the soft pronunciation at the expense of the hard (see also Einarsson 1932). The southern type of dialect, where stops are opposed by aspiration initially and not opposed by any other feature medially except for length, owing to gemination, is also present in other parts of Scandinavia where lenition is said to have occurred. They include Bornholm Danish, southern Swedish, southwestern Norwegian, and other isolated pockets (cf. Goblirsch 1993).

The two types of dialect with regard to aspiration are well established. even if the boundaries are not. But it is not clear how the two types relate to one another chronologically. The older view, and the traditional one among Icelanders, is that of Einar Haugen (1941) echoed by Kenneth Chapman (1962: 56-57): strong aspiration, including medial aspiration, was once present in the whole of Iceland and later lost in the south. This would indeed mean that a type of lenition or weakening has occurred in the south, but such a finding depends on how we view aspirated consonants. If they are viewed as weaker than nonaspirated stops according to the stages in spirantization outlined above, we have a strengthening of consonants in the loss of aspiration in the southern dialect. The other view is that of Steblin-Kamenskij (1960 and 1974), who seems to have based his view on Guðfinnson 1947. The idea is that before the shift, Icelandic had weak aspiration in all positions or at least in initial position. In the north it would then have been strengthened (becoming distinctive) in all word positions, while in the south weakly aspirated fortes were 'weakened' to voiceless lenes following vowels. This is considered a lenition by Steblin-Kamenskij. Neither view can be proven definitively, but the traditional view would better fit my reconstruction of Common Germanic and Northwest Germanic lacking aspiration in all positions. Aspiration would have developed first as part of the change in the mark of correlation and would have been lost by later deaspiration

in southern Icelandic. Perhaps the anomalous character of the feature in postvocalic position and its lack of function here explain its irregular presence in northern Icelandic and hastened its loss in southern Icelandic. In any case, the Icelandic 'lenition' is a nonphonological change, since it occurs in a position of neutralization.

#### 4. Preaspiration

Among the modern standard Germanic languages, preaspiration is a feature unique to Icelandic and Faroese. It has been attested in a variety of Scandinavian dialects, most notably southwestern Norwegian. For a survey of the occurrence of preaspiration, see Liberman 1982: 111–17. The phonetic nature of preaspiration, its origin and its phonological classification have been the subject of much research in the past sixty years. In this paper, there will be no attempt at reviewing the entire history of the problem, rather only at treating the feature as it is relevant to the Icelandic consonant shift.

Preaspiration has a limited distribution in Icelandic: it occurs preceding geminated NWGmc. pp, tt, kk and long stops derived from final NWGmc. p, t, k and simple NWGmc. p, t, k preceding sonorants. Compare the following examples, where it is transcribed with h: kj<sup>h</sup>ehba (keppa) 'fight', k<sup>h</sup>ahp (kapp) 'zeal', haihda (hætta) 'cease', saiht (sætt) 'reconciliation',  $\theta$ ahġa (*pakka*) 'thank',  $\theta$ œhk (*bökk*) 'thanks', ɛhblī (*epli*) 'apple', yahdna (vatna) 'water', yahgna (vakna) 'wake'. Preaspiration has been described in a variety of ways: as the voiceless end of a vowel, a sound resembling h, a homorganic fricative. There appears to be some variation in the realization of the sound. See Liberman 1982: 90-110 for a summary and discussion of the research. Perhaps the fullest description is given by Magnús Pétursson (1972). Based on instrumental measurement, he stresses the similarity of preaspiration to h, reporting that it is longer than postaspiration and that the glottis is less wide open than for postaspiration. Evidently, the smaller glottal opening does not allow the air to pass as quickly.

Pétursson also notes that, although the closure of a preaspirated stop is shorter than that of an unaspirated intervocalic stop, the duration of the entire sequence is similar to that of a cluster. Further instrumental studies by Sarah Garnes (1973, 1976) and Janez Orešnik and Pétursson (1977) found no significant differences in consonant length in southern Icelandic. This finding led the latter to classify southern Icelandic as the same type as Danish with regard to consonant quantity. Yet their view seems unwarranted: Danish has had a full-fledged lenition with the shortening of geminated consonants, whereas southern Icelandic has not. Furthermore, the studies of Garnes did not include just the consonants which we would expect to have a long closure: the still geminated reflexes of NWGmc. *bb*, *dd*, *gg*. Despite the instrumental findings, it seems that preaspirated stops function as long consonants.

There is further no agreement as to the phonological evaluation of preaspiration. There are three leading views on the subject. Haugen (1958) analyzed preaspiration as a positional variant of the segmental feature aspiration: aspiration occurs before or after the stop closure, depending on which side is closest to the nucleus of the syllable. This view is reprised by Kristján Árnason (1977, cf. 1986), who restates the formula in generative terms, saying that preaspiration is a redundancy rule, which derives preaspirated stops from underlying hard stops. Similar rules are to be found in Orešnik 1978, Thráinsson 1978a, and Hermans 1985.

The other two theories do not classify preaspiration as a segmental feature. Pétursson (1972), noting the difference between pre- and post-aspiration in his instrumental investigations, classifies preaspiration as a segment in its own right, the phoneme /h/. This seems also to have been the view of Kemp Malone (1952), although his phonological analyses are far from clear. Anatoly Liberman (1972, 1982: 98) establishes preaspiration as a prosodic feature. This conclusion is based primarily on the distribution of preaspiration: it occurs only in accented syllables and is tied to geminates, whose closure is short because preaspiration attracts the quantitative peak (word stress) to itself. In this regard, it is reminiscent of West Jutland stød.

The origin of preaspiration is likewise disputed. The traditional solution to the problem was first expressed by Pierre Naert (1969), who argues for a leapfrog development of the feature: aspiration migrated from the position following the closure to the position preceding closure, because aspiration was not possible for geminated pp, tt, kk. Although this explanation would mesh well with Haugen's phonological classification of preaspiration, it does little to explain its origin.

Two other theories are much better grounded. Pétursson (1978) finds the origin of preaspiration in a recoordination of articulatory timing. The peak of glottal opening in the unaspirated stop was moved forward from the closure to the preceding vowel. He argues for the same development in preaspirated stops before sonorants. The motivation for this view was the development of voiceless sonorants before NWGmc. p, t, k in southern Icelandic. In northern Icelandic, where we have aspiration, the peak of glottal opening would have been moved later into the closure of the stop. Another article from the same year by Höskuldur Thráinsson (1978b, see also Iverson 1989) presented a similar idea with few details.

Liberman (1970, 1982: 268), lastly, views preaspiration not as a new, but as an old feature, which has been redistributed. He argues that preaspiration once occurred before voiced and voiceless geminates, but later became restricted to the old voiceless geminates, to preserve the distinction from the old voiced geminates. He found evidence in the preaspirated, voiced geminates, recorded in the east fjords of Iceland and in Stockholm speech. Richard Page's (1997) article on the topic echoes the ideas of Pétursson's and Liberman's work.

Liberman (2000) sees Icelandic preaspiration as the most outstanding example of the Germanic tendency to reinforce the distinction of p, t, kfrom b, d, g in medial position, when the latter lost voice and markedness and threatened to merge with p, t, k. Other pseudolaryngeals like West Jutland stød and the glottal stop in English and Westphalian dialects of German are analogues of preaspiration, but none reached preaspiration's status as a regular device of meaning differentiation. Along with aspiration, it ensured the assumption of markedness by p, t, k when b, d, g became devoiced.

All three theories of preaspiration connect its development, at least in terms of its distinctive nature, with the loss of phonological voice in Icelandic. This change is generally dated to the 15th-16th centuries. I think the connection is quite correct, and preaspiration differs in this regard from postaspiration. While the evolution of aspiration brought about the loss of distinctive voice, distinctive preaspiration is a *reaction* to it. It enabled the system to preserve the distinction between old voiced and voiceless geminates in pairs like *labba* 'stroll' vb. / *lappa* 'patch' vb. Despite the different causal relationship, we still have a true consonant shift in this position: the development of distinctive preaspiration is a rephonologization, an exchange of features, and a change in the mark of correlation. Yet all of the changes in question may go back to an earlier time.

# 5. Faroese, southwestern Norwegian, and the dating of the shift

As hinted at above, the consonant systems of Faroese and certain southwestern Norwegian dialects share traits in common with Icelandic, perhaps more the southern dialect than the northern. In the research on these language forms, a connection has been made between Icelandic and Danish. There have been contacts through the Danish Empire, on the one hand, and through the settlement of Iceland, the Faroes and other islands in the north Atlantic, on the other. Chapman (1962) has worked particularly with Icelandic-Norwegian correspondences. Although no firm conclusions can be reached regarding the exact relationship of the common features in these languages and dialects and the historical connections of the areas, it seems likely that there has been some common development.

Although Faroese has not been nearly as well described as Icelandic, it appears to have largely the same obstruent system. The southern dialect, south of Skopenfjord, corresponds quite well to the southern dialect of Icelandic. The northern dialect, north of Skopenfjord, seems to correspond to the northern dialect of Icelandic, although this is less certain, based on available descriptions. As in Icelandic, voice plays no phonological role in obstruents and simple stops are distinguished by aspiration, geminates and long stops by preaspiration. Consonant strength seems to be quite variable and is considered by all to be nondistinctive, as is voice.

Although there is variation, it is reported by V. U. Hammerschaimb (1891, lviii), Otmar Werner (1963), and Sigurd Amundsen (1970) that there is more voicing of NWGmc. b, d, g and bb, dd, gg in the south than in the north. There is final devoicing as in Icelandic. Aspiration is present initially before vowels and consonants and is possible finally. In the south, there has apparently been a medial and final 'lenition' of NWGmc. p, t, k as in southern Icelandic. W. B. Lockwood (1955: 22–23) reports that p, t, k are voiced in a voiced environment, but voiceless after voiceless sounds. The state of these consonants is not clear in the north, but Hammerschaimb, Naert (1958), and Amundsen seem to indicate that the northern dialect has aspirated p, t, k in these positions. There is also preaspiration of NWGmc. pp, tt, kk and p, t, k before sonorants as in Icelandic, though the preaspiration is described by Naert as shorter and less distinct. Preaspirated and nonpreaspirated geminates seem to be quite long in the north, but less distinct in the south, as Werner relates.

He also noted voicing of the preaspirated geminates here. At least in the south, there is also devoicing of sonorants preceding stops.

The state of obstruents in southwestern Norwegian dialects has been well documented in numerous dialect descriptions. There is loss of phonological voice as in Danish, South Swedish and other isolated areas in Scandinavia, but no shortening of old long consonants as there was in most of Danish (cf. Goblirsch 1993). It is reported that the presence of voice is variable, as one would expect. For a few isolated dialects in the area, other traits shared by Icelandic and Faroese have been registered. Although it may not be distinctive, medial aspiration stronger than in other continental Scandinavian dialects has been reported for isolated areas in Aust-Agder (Moy 1934: 71), Vest-Agder (Kydland 1940: 51–52) and for the area in general by M. Berntsen and Amund Larsen (1925: 174–76). It must be noted that aspiration occurred mostly in postsonorant position. The latter researchers also noted 'greater emphasis' of these medial consonants. It is not clear what to make of these scattered reports.

Of much greater interest in this context is the existence of preaspiration with the same distribution as in Icelandic. For the dialect of Gjestal, Jæren in west Rogaland, a dialect that otherwise resembles Icelandic, Magne Oftedal (1947) reported distinctive preaspiration of old voiceless geminates and voiceless stops before sonorants and sonorant devoicing before old voiceless stops. The presence of preaspiration was also recorded instrumentally by Stephan Wolter (1964) in the same positions and for final long stops in Bryne in Jæren and Stavanger (cf. Selmer 1924, Berntsen/Larsen 1925).

Based on this evidence and other well known evidence, it seems we have some kind of dialect continuum formed by southwestern Norwegian, Faroese, and Icelandic. It is, after all, from this part of Norway that most of the settlers to the western islands originated. The question is whether the changes described above, collectively known as the Icelandic consonant shift, originated before the settlement of Iceland in southwestern Norway or were spread at a later date. A further question is why there is not more attestation of medial aspiration and preaspiration in southwestern Norgwegian.

If, as I would like to argue, the changes are older than traditionally thought, we have a period around the 7th-8th centuries, when secondary consonant shifts took place all over the Germanic world: in southern Germany, in Denmark, in southwestern Norway. Other changes of much smaller scope in the remaining areas, probably dating from the same period, may also be noted. In southwestern Norway, the scattered attestation of preaspiration may reflect a feature once more prevalent but lost due to influence of the standard. Medial aspiration need not concern us as much, since, at least in postvocalic position, it was nondistinctive and lost in southern Icelandic and Faroese as well. The phonological devoicing in southwestern Norway may have occurred in contact with Danish, which seems to be a genetic center of this change, but not necessarily. The developments in southwestern Norway seem to be best preserved in the colonial dialects.

#### 6. Conclusion

In Icelandic, we have a true consonant shift: it encompasses series changes, involving a rephonologization with a change in the mark of correlation. As in the other shifts in Germanic, voice is replaced by aspiration. Although the final goal is not reached in Icelandic, steps are taken in the direction of spirantization, a weakening of stop articulation. Loss of voice and spirantization of stops are changes which run throughout the entire history of Germanic consonants. It seems that the goal of the evolution of Germanic consonants is to remove voice and occlusion from the system, only the goal is never quite achieved. Unlike the other shifts, Icelandic makes use of preaspiration as a distinctive device, which is unknown in any other standard Germanic language except the closely related Faroese.

Furthermore, Icelandic bears a strong similarity in the details of the process to the other secondary shifts, the Danish shift on the one hand, and the High German shift on the other. With Danish, Icelandic shares not only the strength of aspiration but also the lack of opposition in simple postvocalic consonants. This is due to the same point of departure, namely the North-West Germanic obstruent system which remained in Scandinavia. Here voiced stops were lacking in postvocalic position. By contrast, High German had gained occlusion of the voiced spirants following vowels, so the opposition of simple stops spread to this position as well.

With High German, Icelandic shares the distribution of aspiration in all word positions: initial, medial, and final. Although in the latter position aspiration is not distinctive in Icelandic, it may once have been. Germanic must have had an opposition here, manifested in most areas by voice before neutralization in final position set in throughout the Old Germanic world. Only Gothic has any indication of the former opposition. The extension of the new opposition of aspiration to medial and final position represents the preservation of obstruent oppositions in Icelandic (and southwestern Norwegian) and High German on the edges of the Germanic speaking world. Danish in the middle of the Germanic area, did not allow the opposition of aspiration in any position but initial. Danish also did away with other distinctions outside the root syllable: gemination in intervocalic position, and full vowels in unaccented syllables. Yet in Icelandic and in Old High German, geminates remain and full vowels remain in unaccented syllables. Surprisingly, Icelandic shares these traits with German, while at the same time sharing the strength of aspiration with Danish, where it seems to be more at home. Here we have a greater concentration of phonological information on the primary syllable. Danish takes this common Germanic tendency to its extreme. So Icelandic occupies a curious position within the Germanic world: it is a Scandinavian language, but seems to have a shift much like that of High German, although it does not shift its consonants as far and also employs preaspiration as a distinctive device.

### Works cited

Amundsen, S. 1970: "Étude de phonologie féroïenne". Orbis 19, p. 381-98.

- Árnason, K. 1977: "Preaspiration in Icelandic: Phonetics and Phonology". Sjötiu ritgerðir helgaðar Jakobi Benediktssyni. Stofnun Árna Magnússonar, Reykjavík, p. 495–504.
- Árnason, K. 1986: "The Segmental and Suprasegmental Status of Preaspiration in Icelandic". Norwegian Journal of Linguistics 9, p. 1–23.
- Benediktsson, H. 1961–62: "Icelandic Dialectology: Methods and Results". *Islenzk Tunga* 3, p. 72–113.
- Berntsen, M., and A. B. Larsen. 1925: Stavanger bymål. Aschehoug, Oslo.
- Bothorel-Witz, A., and M. Pétursson. 1972: "La nature des traits de tension, de sonorité et d'aspiration dans le système des occlusives de l'allemand et de l'islandais". *Travaux de l'institut de phonétique de Strasbourg* 4, p. 277–356.
- Chapman, K. 1962: *Icelandic-Norwegian Linguistic Relationships*. Norsk tidsskrift for sprogvidenskab supplemental bind 7. Universitetsforlaget, Oslo.
- Einarsson, S. 1927: Beiträge zur Phonetik der isländischen Sprache. Brøggers, Oslo.
- Einarsson, S. 1932: "Icelandic Dialect Studies I. Austfirör". Journal of English and Germanic Philology 31: 537–72.
- Einarsson, S. 1945: Icelandic: Grammar, Texts, Glossary. Johns Hopkins University Press, Baltimore.

- Fischer-Jørgensen, E. 1966: "Phonetic Analysis of Danish Stop Consonants". Annual Report of the Institute of Phonetics (University of Copenhagen) 1, p. 31–33.
- Fourquet, J. 1954: "Die Nachwirkungen der ersten und der zweiten Lautverschiebungen". Zeitschrift für Mundartforschung 22, p. 1-33.
- Garnes, S. 1973: "Phonetic Evidence Supporting a Phonological Analysis." Journal of Phonetics 1, p. 273-83.
- Garnes, S. 1976: Quantity in Icelandic: Production and Perception. Hamburger phonetische Beiträge 18. Buske, Hamburg.
- Goblirsch, K. G. 1993: "Consonant Lenition in the Scandinavian Languages". Svenska landsmål och svenskt folkliv, p. 7–17.
- Goblirsch, K. G. 1994a: "Fortis and Lenis in Standard German". Leuvense Bijdragen 83, p. 31-45.
- Goblirsch, K. G. 1994b: Consonant Strength in Upper German Dialects. North-Western European Language Evolution Supplement Volumes 10. Odense University Press, Odense.
- Goblirsch, K. G. 1999a: "The Mechanism of Consonant Shifts in Germanic." Yazyk i rechevaya deyatel 'nost' (Language and Speech). Journal of the Linguistic Society of St. Petersburg 2, p.186–94.
- Goblirsch, K. G. 1999b: "The Correlation of Voice in Germanic". North-Western European Language Evolution 35, p. 115–40.
- Guðfinnsson, B. 1946: Mállyzkur I. Ísafoldarprentsmíðja, Reykjavík.
- Guðfinnsson, B. 1947: Breytingar á framburði og stafsetningu. Ísafoldarprentsmíðja, Reykjavík.
- Guðmundsson, V. 1922: Islandsk Grammatik. Islansk Nutidssprog. Hagerup, København.
- Hammerschaimb, V. U. 1891: Færøsk anthologi I. Møller, København.
- Haugen, E. 1941: "On the Consonant Pattern of Modern Icelandic". Acta Linguistica Hafniensia 2, p. 98–107.
- Haugen, E. 1958: "The Phonemics of Modern Icelandic". Language 34, p. 55-88.
- Hermans, B. 1985: "The Relation between Aspiration and Preaspiration in Icelandic". H. van der Hulst and N. Smith (eds.), Advances in Nonlinear Phonology. Foris, Dordrecht, p. 237–65.
- Iverson, G. K. 1989: "On the Category Supralaryngeal". Phonology 6, p. 285-303.
- Jacobsohn, H. 1925: "Über die ältesten germanischen Lehnwörter im Finnischen". Arkiv för nordisk filologi 41, p. 246–76.
- Karsten, T. E. 1915: Germanisch-finnische Lehnwortstudien. Ein Beitrag zur ältesten Sprach- und Kulturgeschichte der Germanen. Acta societas scientiarum fennicae 45.2. Finnische Literaturgesellschaft, Helsinki.
- Karsten, T. E. 1926: "Zur Kenntnis der ältesten germanischen Lehnwörter des Ostseefinnischen unter Berücksichtigung der iranischen und baltischen Wörter". *Acta Philologica Scandinavica* 1, p. 244–83.
- Kress, B. 1937: Die Laute des modernen Isländischen. Diss. Universität Berlin, 1937. Schulze, Berlin.

- Kress, B. 1963: Laut- und Formenlehre des Isländischen. Niemeyer, Halle/Saale.
- Kortlandt, F. 1988: "Proto-Germanic Obstruents". Amsterdamer Beiträge zur älteren Germanistik 27, p. 3–10.
- Kuryłowicz, J. 1948: "Les sens des mutations consonantiques". Lingua 1, p. 77-85.
- Kydland, P. 1940: Gylandsmålet. Eit yversyn yver ljodverket. Bidrag til nordisk filologi av studerende ved Kristiania universitet 11. Aschehoug, Oslo.
- Liberman, A. 1970: "Reconstruction of Icelandic Prosody". *Science in Iceland* 2, p. 37–42.
- Liberman, A. 1972: "Sidelight on Icelandic and Scandinavian Preaspiration". Travaux de l'institut de phonétique de Strasbourg 4, p. 1–17.
- Liberman, A. 1982: Germanic Accentology. Vol. 1. The Scandinavian Languages. Minnesota Publications in the Humanities 1. University of Minnesota Press, Minneapolis.
- Liberman, A. 2000: "Pseudolaryngeals (Glottal Stops) and the Twilight of Distinctive Voice in Germanic". K. Jones-Bley, M. E. Huld, A. Della Volpe (eds.), Proceedings of the Eleventh Annual UCLA Indo-European Conference. Journal of Indo-European Sudies Series 35. Washington, D. C., Institute for the Study of Man, 311-53.
- Lindroth, H. 1927: "Några anmärkningar om tenues i urgermanskan". *Festskrift til Hjalmar Falk*. Aschehoug, Oslo, p. 227–44.
- Lockwood, W. B. 1955: An Introduction to Modern Faroese. Munksgaard, København.
- Löfqvist, A., and M. Pétursson. 1978: "Swedish and Icelandic Stops: A Glottographic Study". J. Weinstock (ed.), *The Nordic Languages and Modern Linguistics*. University of Texas Press, Austin, p. 454–61.
- Löfqvist, A., and H. Yoshioka. 1981: "Laryngeal Activity in Icelandic Obstruent Production". Norwegian Journal of Linguistics 4, p. 1–18.
- Malone, K. 1952: "The Phonemes of Modern Icelandic". Studies in Honor of Albert Morey Sturtevant. University of Kansas Press, Lawrence, p. 5-21.
- Moy, M. 1934: "Fjæremålet". Diss. University of Oslo.
- Naert, P. 1958: "För en finare fonetisk transkription av färöiskan". Lundastudier i nordisk språkvetenskap 14, p. 23-33.
- Naert, P. 1969: "La différenciation des consonnes en corrélation quantitive en islandais et féroyen". Orbis 18, p. 427–38.
- Ófeigsson, J. 1920–24: "Træk af moderne Islandsk lydlære". S. Blöndal (ed.), Islandsk-dansk Ordbog. Aschehoug, København, p. xvi–xxviii.
- Oftedal, M. 1947: "Jærske okklusivar". Norsk tidsskrift for sprogvidenskab 14, p. 229-35.
- Orešnik, J. 1978: "Modern Icelandic Preaspiration from a Phonological Point of View". *Linguistica* 18, p. 141–66.
- Orešnik, J., and M. Pétursson. 1977: "Quantity in Modern Icelandic". Arkiv för nordisk filologi 92, p. 155–71.
- Page, B. R. 1997: "On the Origin of Preaspiration in Scandinavian". American Journal of Germanic Linguistics and Literatures 9, p. 167–90.

- Pétursson, M. 1972: "La préaspiration en islandais moderne. Examen de sa réalisation phonétique chez deux sujets". *Studia Linguistica* 26, p. 61–80.
- Pétursson, M. 1976: "Aspiration et activité glottale. Examen expérimental à partir de consonnes islandaises". Phonetica 33, p. 169–98.
- Pétursson, M. 1978: "Entstehung der Stimmhaftigkeitskorrelation der Nasale und Liquiden im modernen Isländischen". Nordeuropa Studien (Zeitschrift der Ernst-Moritz-Arndt-Universität Greifswald) 11, p. 150–57.
- Selmer, E. W. 1924: Om Stavangermålets 'hårde' og 'bløte' klusiler. Opuscula phonetica 5. Brøggers, Kristiania.
- Steblin-Kamenskij, M. I. 1960: "Den islandske klusilforskyvning i fonologisk fremstilling". Arkiv för nordisk filologi 75, p. 74–83.
- Steblin-Kamenskij, M. I. 1963: "Some Remarks on the Mechanism of the Germanic Consonant Shifts". *Studia Linguistica* 17, p. 77–86.
- Steblin-Kamenskij, M. I. 1974: "The Scandinavian Consonant Shift". Arkiv för nordisk filologi 89, p. 1–29.
- Sveinbjörnsson, S. 1933: *Icelandic Phonetics*. Acta Jutlandica. Aarskrift for Aarhus Universitet 5. Supplement. Aarhus University Press, Aarhus.
- Thráinsson, H. 1978a: "On the Phonology of Icelandic Preaspiration". Norwegian Journal of Linguistics 1, p. 3–54.
- Thráinsson, H. 1978b: "Dialectal Variation as Evidence for Aspiration Theories". J. Weinstock (ed.), *The Nordic Languages and Modern Linguistics*. University of Texas Press, Austin, p. 533–44.
- Vennemann, T. 1984: "Hochgermanisch und Niedergermanisch. Die Verzweigungstheorie der germanisch-deutschen Lautverschiebungen". Beiträge zur Geschichte der deutschen Sprache und Literatur 106, p. 1–45.
- Werner, O. 1963: "Aspiration und stimmlose Nasale im phonologischen System des Färingschen". *Phonetica* 9, p. 79–107.
- Wiklund, K. B. 1917–18: "Die ältesten germanischen Lehnwörter im Finnischen", Indogermanische Forschungen 38, p. 48–115.
- Wolter, H. 1964. "On Preaspirated Stops in a Norwegian Dialect". E. Zwirner and W. Bethge (eds.), Proceedings of the Fifth International Congress of Phonetic Sciences. Karger, Basel, p. 594–97.