1. The Germanic languages: phonological principles and drift

(a) Grimm’s and Verner’s Law, (b) consequent placement of stress on the first syllable of a word, (c) subsequent reduction of vowels in unstressed syllables (cf. Gothic /i, a, u/ or Faroese /e [< i, u], a/) but there are also languages with schwa (/a/) or apocope: /∅/.

**Drift:** (1) Dominance of monosyllabic words with complex consonant clusters in the coda, (2) this could give rise to the origin of (simple) tone languages (e.g. in SE Jutish, cf. Braunmüller 1995b/[1987]), in Low German and some Norwegian dialects, and (3) apocope and/or schwa (quite typical for many modern Germanic languages).

2. Intervening factors

In the Scandinavian languages: (I) Emergence of (new) clitics, both in the nominal and the verbal part of grammar, (II) language contact (vowel harmony, new word formation elements), (III) language cultivation and language planning; moreover: complex consonant (C) clusters: in the onset (1–3 Cs), in the coda (with a max. of 5 Cs).

3. Splitting up Proto-Germanic: mainly a case of vowel change?

Relative continuity of the consonantal frames (exception: [Old] High German); a short paradigmatic survey of this development:

(1) Gallehus (about 425 AD):

\[ \text{ek hlewagastir holtijar horna tawido} \]

(where the final R still represents [z] and not [r], as it did in later times)


(2) *ek[a] hlewaṣtiz hultijaz hurnan tawidōn. (Proto-Germanic)

(3) *ik hliugasts hulteis haúrn tawida. (Gothic)

(4) *ek hlégestr hyltir horn g[e]rða [táða]. (Old Norse/Old West Scandinavian)

(5) *ic hléogiest hylte horn táwode. (Old English).

Pan-Scandinavian breaking: Gmc. e > ja / __ a: *eka > jak > /i[e][k]g/ or > /jai/ jeg, with a double consonantal weakening of /k/ > /g/ > /i/:)

(6) *ih [hleo]gast hulzi horn zawita. (Old High German)

(7) Jeg Legest lavede [dette] horn. (Modern Danish):
Apocope (-a, -(a)n > Ø), umlaut (u > o; u > y; a > e), syncope (ewa- > -eo/-e; awi > a; ija[z]/r > -ir/-eis) and the reduction of long vowels (-ō > a, -a(n) > e [r]?).

There is a strong tendency from a syllable to a word language in North Germanic.

(8) Common medieval Scandinavian *skip* /skip/ ‘ship’ became
(8a. *skib* /skib/ in Danish or *skip* /ʃɪp/ in Norwegian and Faroese, but
(8b. *skeyp* /ʃep/ in Swedish:
/V:(C), [VV]d(C); VC; VCC/; extra long or heavy syllables are still possible (e.g. in West Norwegian *haust* /C[VV]d CC/ ‘autumn, harvest’) but mostly due to grammatical affixation (cf. Swedish *fint* /fjnt/, *svans* /svœns/ ‘swan[gen.sing.]’ vs. *svans* /svœns/ ‘tail[nom.sing.]’; Braunmüller 2007: 43-45).

4. The phonotactics of Proto-Germanic and Ancient Nordic

Proto-Germanic and Ancient Nordic: typical syllable languages: (1) all vowels can occur in any syllable type, (2) consonant clusters are less complex compared to Old Norse: [2a] onset: #CC-: fl-, fr-, gl-, hl-, wr-, pr-; [2b] interlude: –CC-: e.g. -lg-, -kl-, -ng-, -rb-, -rk-, -st-; [2c] coda: -(C)CC#: e.g. -fR, -kl, -lt, -mR, -ng, -rl, -rn, -st, -tR and -htr, -lf; (3) dynamic stress on the first syllable; (4) apocope and syncope may have occurred much earlier but have not been marked in writing yet.

5. West Scandinavian: from a syllable to a word language

Medieval West Scandinavian: Icelandic and Faroese: from a typical syllable to a word language:

5.1. Syllable structure features

(A) Consonant clustering and even fusion in both in the onset and the coda (cf. as for palatalisation in the onset (1) before fronted vowels: *gjefva* ‘to give’ and *kottur*/ *kotta* ‘cat’: in Icelandic pronounced as /gj- ~ y-; kj- ~ c-/, in Faroese as /dʒ-; tʃ-/) as in *skip* ‘ship’, or the sharpening in the coda (2) of monosyllabic words in Faroese: *kúgp* ‘cow’ or *plógr* ‘plow’ /-igv; -guy/; even consonant scrambling in coda clusters may occur, as in Far. *danskt* ‘Danish[neutr.]’ or *feskt* ‘fresh[neutr.]’: /-skt/ > /-kst/. (Danish has abolished the -t and Swedish drops the -k- in these cases.)

(B) The occurrence of complex syllables (consonant clusters in the onset and the coda, long consonants with/without pre-aspiration in the interlude before e.g. unvoiced long consonants, as e.g. in *hattur* ‘hat’ /-ht-/ vs. the earlier unaspirated *finna* /-n-/ ‘to find’, respectively).

(C) More complexity in stressed than in unstressed syllables (cf. *fiskunum* ‘fish[pl.]-the[dat.]’ or *vetrinn* ‘winter-the[nom.]’ Icel./Faro.).
(D) Long vowels and long consonants can only occur in stressed syllables.

(E) Tendency towards a reduction of unstressed inflectional syllables, but only in spoken Faroese. Reductions in names of islands containing oy (or the older form ey) may also occur, as e.g. in Nólsoy /-i/ and their inhabitants such as in Føroyingur /'fɔːringur/.

(F) Long syllables occur quite frequently, some of them are due to the lengthening of syllables/words in the late Middle Ages (cf. koma /o > oː/ ‘to come’). When long syllabic consonants (-IR > -ll or -nR > -nn) occur in the coda they both get devoiced and splitted up into two very distinct consonants (‘consonantal diphthongisation’: jökull ‘glacier’ /-dl/ or steinn ‘stone’ /-dn/).

5.2. Phonological processes

(G) Hiatus occurs in some Faroese dialects but most dialects have inserted glides (cf. bláur ‘blue’: /bla(o)vur/). (But: Swedish, omission: normally in Europa ‘Europe’: /eɪrʊpa/, or may be omitted as in augusti ‘August’: /aʊ(ʊ)gusti/, insert a glide /eɪrʊpa/ or a juncture: neutral ‘neutral’ /neʊtəral/.

(H) There is no vowel harmony in any western Scandinavian language or dialect.

6. East Scandinavian: evidence for a typological cycle and for counter drift

6.1. The role of retroflexes in unstressed syllables

All Scandinavian languages have enclitic definite articles; important precondition: consonant clusters containing an apical r before /[r]/ + /t, d, n, s, l/ > /t, d, n, s, l/.

Tendencies towards retroflex formation in modern Faroese: rn: either as /-rn/ as in torn ‘tower’ and in inflexions as in -irrín, -nar ‘def.plurals’, or as /-dn/ (cf. horn ‘horn’, bjorn ‘bear’); the preceding can r can also be omitted (torskr ‘cod’ /toskr/, even in the definite articles in their plural forms (cf. hundamir ‘the dogs’ /hundanir/); equivalent to a simplification or reduction of a retroflex cluster (cf. Dano-Norwegian hundene and New Norwegian hundane ‘dog-s-the’).

→ contact assimilation: sandhi (cf. Swedish jordiskalv ‘earthquake’ /-dɔs-/; Han kommer snart hem. ‘He comes home soon.’:/t / <...rt> + /ɔs/ /...r s../.

6.2. The rise of new enclitic inflexions: a starting point for a new typological cycle

Old Norse dagr-inn (< dagr + [h]inn) /-in/: -VC#: dags-ins /-Ins/: -VCC#: degi-([h]l)num /-lnum/: -VCVC#, dag-inn /-inn/: -VC ‘day-the[nom./gen./dat./acc.]’ and dagar-nir /-NIR/: -CVC#, daga-nna /-NNA/: -CV#; dogu-num < dogum + ([h]l)num /-num/: -CVC# (but in Old Swedish dagum-in /-in/: -VC#), daga-na < daga + (hi)na /-NA/: -CV# ‘days-the[nom./gen./dat./acc.]’.
Iconic marking in the singular paradigm: all forms contain an i (marked in bold) as an overt definite singular marker (which still can be seen in the modern West Scandinavian languages; cf. Braunmüller 2001: 79).

Result: an absolutely **balanced sequence** of vowels and consonants in their definite inflexion: Swedish båt-en (-VC#) ‘boat-the’ and båt-ar-na (-VC_RV#) ‘boat-s-the’. In Danish and western Norwegian dialects, reflexes do not occur (Danish: a velar r [R]: båd-en: -VC# and båd-ene: -VCV#) Dano-Norwegian: the r has disappeared (båt-en and båt-ene and New Norwegian, respectively: båt-en and båt-ane: /-VC#; -VCV#/).

→ **main point: new morphological developments** (i.e. the emergence of a new inflectional system). The drift from a syllable to a word language has come to a (preliminary) end and a new morpho-phonemic development starts up!

6.3. **Language contact: origin of a counter-drift towards a syllable language**

6.3.1. **Vowel balance/harmony**: known from Sámi or Finnish; in northern Norwegian and Swedish dialects: **vowel balance** (Swed. *vokalbalans*, Norw. *jamvekt*): the inflectional endings are taken from two distinct subsets of vowels (high: i – u vs. middle: e – o and low: a), depending on the vowel of the accented syllable; **vowel harmony** (Norw. *jamvekt med tiljaming*): the quality of the vowel of the stressed syllables are also projected unto the unstressed ones; restricted to light syllables (short vowel + short consonant (cf. Old Norse *baka* /CVC-V/ > båkå vs. heavy syllables (cf. Old Norse *kasta* /CVCC-V/> kaste or kastø); prevent the reduction of the coda and preserve the syllable-oriented language type up to the present.

→ Kusmenko (2008: ch. 11 & 12): due to **language contact** with Sámi dialects; it seems to initiate a counter-drift, back again towards a more syllable oriented type of language (keeps non-reduced vowels in unstressed syllables); non-reduced vowel in Swedish: /a, u, u/ (ditto for New but not for Dano-Norwegian).

Norwegian dialects have **final -e**: (1) the enclitic definite feminine singular article (cf. bok-a ‘book-the’, regering-a ‘government-the’), (2) the enclitic definite neuter plural article (cf. ar-a ‘years-the’), (3) the preterit and (4) the perfect participle of regular verbs (cf. vask-a ‘washed’, which is no longer morpho-phonologically related to Danish vask-ede and vask-et or to conservative Dano-Norwegian vask-et).

6.3.2. **Accent 2** (in bi-syllabic words): retention of non-reduced vowels in unstressed syllables; accent 2 words: the pitch raises (again) in the second syllable with its peak somewhere on the nucleus, while the dynamics of the primary accent of the first syllable fades out (cf. Gårding 1978, Riad 2000). Only in some south-eastern Norwegian varieties, especially in the area of Oslo, we find some sort of a second stress intensity peak in accent 2 words on the second, normally unstressed syllable.
Typological parallels to the phonotactics of Finnish (and Sámi) (see Braunmüller (1995/[1980]: 41-46): retain full unstressed vowels.

6.4. Language cultivation: introducing spelling pronunciation in Swedish

Language cultivation seems to play an import role in the history of modern Swedish. As early as 1612, the Royal Chancellery in Stockholm used a final -a (in infinitives) because the Danes wrote a final -e (cf. Svensson 1981 and Teleman 2002: 65ff.)!

By the end of the 18th century, language cultivation led to a new codification of the written norm (cf. Sahlstedt [1747–73; 1769], Botin [1777] and Leopold [1801]). One of their principles was euphony (vålljudsregel), they favoured the -(n)a-plural forms in the case of bi-syllabic neuters, such as in äpplena ‘apples-the’(vs. äpple-n ‘apple-s’) or hjärta ‘hearts-the’ (vs. hjärt-n ‘hearts’). In the case of mono-syllabic neuters, -en [pl.def.] became default (cf. husen ‘houses-the’), even for loan words today, such as jeansen ‘jeans-the[pl.]’. Together with non-reduced plurals ending on -or [-ør], -ar and -er [-er], definite plural suffixes with retroflexes occurred: -orna/arno/erna which show a balanced syllable structure: /-CrV#/.

According to the euphonic principle, the originally feminine adjective declension ending on -a was preferred.

Verbal paradigm: The dominant plural suffix was -a by the end of the 18th century; -e, -om and -o were clearly in the minority. So -a became the uniform plural inflexion marker which existed in some conservative publications up to the middle of the 20th century (cf. hava ‘have[pl.pres.]’ or äro ‘are[pl. pres.]’ vs. har ‘have[sing.pres.]’ and är ‘be[sing.pres.]’). At the same time, an overt morphological marking between the past participle inflexion on -en (cf. skriven ‘[is /are] written’) and the supine inflexion on -it (cf. skrivit ‘[has (been] written’) of irregular verbs became obligatory, the corresponding forms of the regular verbs have, if phonotactically possible, always an -a in their suffixes (cf. spelat ‘played’) as in their infinitival forms (here: spela ‘to play’).

7. Conclusion

Scandinavian word phonology has confirmed the general tendency in Germanic that these languages develop

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<tr>
<th>from a syllable to a word language.</th>
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<td>But there are other factors which may stop or even reverse this drift towards a word language:</td>
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Some southern Jutish varieties (like some Low German and Norwegian dialects as well) even show

[tendencies towards [D] a simple (real) tone language.]

the definite end of any inflectional or agglutinative type of language which Germanic represented at its beginning!
References


Kurt Braunmüller
Hamburg University
Scandinavian Dept.
Von-Melle-Park 6
DE-20146 Hamburg
Germany
email: braunmueller@uni-hamburg.de