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OLD ICELANDIC CONSONANT LENGTHENING RULE AND MODERN
ICELANDIC INFIXATION OF /ð/

Survey and summary. §1: Old Icelandic had a Consonant Lengthening Rule in its morphological component, whose task was to lengthen postvocalic stem final l, n, s in certain inflexional forms, e.g. in the nom. sg. stóll of stól- "chair". The rule is formulated in §1.1, and illustrated in §1.2, where some of its exceptions are listed as well. The formulation of the rule presented in §1.1 is defended in some detail in §1.3. In §1.4 the ordering relations of the rule are discussed (it operates earlier than any phonological rule), and in §1.5 its gradual disappearance from the language is described. §2: In Modern Icelandic, beginning before the Reformation, some of the functions of the Old Icelandic Consonant Lengthening Rule were gradually taken over by the (morphological) mechanism for the assignment of endings. The mechanism assigns, among other things, an infix /ð/, which serves as an inflexional marker, either alone or in combination with suffixed desinences; e.g. Modern Icelandic nom. sg. stóll contains the infixed /ð/ (not found in any other form of the word), which thus continues, in this case, the function of the Old Icelandic Lengthening Rule. §3 defends the position that, say, the rr of the Old Icelandic dat. sg. f. stórri is not due to the operation of the Consonant Lengthening Rule upon stem final r of stór-, but to the substitution of an ending -rri for the stem final r of stór-. Three arguments in favour of this position are stated in §3.2, where the diachronic origin of forms such as ný-tt, ný-rri, Swedish pret. trodde, etc. is claimed to be a consequence of analyses analogous to that of stórri defended here. In §3.3 are listed some claims about language acquisition and the properties of grammars that are implied by the author's position concerning the derivation of stórri and similar forms. §3.4 briefly discusses the fate of some Old Icelandic rr initial endings in the further history of the language. §3.5: §1 and those parts of §§2-4 depending on §1 are to be considered

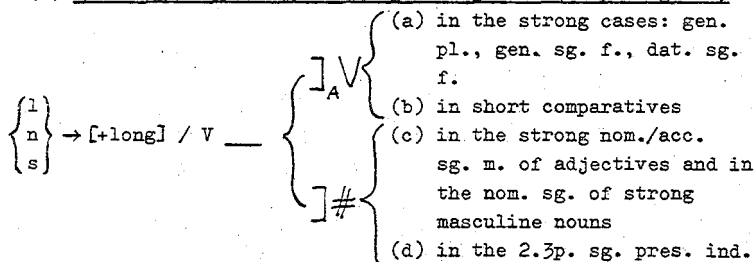
preliminary. §4.1 discusses the lexical entry and the derivations of an Old and Modern Icelandic morphologically regular lexical item (opinn "open") in whose derivations the Consonant Lengthening Rule applied in Old Icelandic. Also mentioned are the less known variants such as gen. pl. liæna for liðinna, and dat. sg. f. opnri for opinni. The importance of the latter type for the correct formulation of the Modern Icelandic Vowel Syncope Rule is stressed.

§4.2 treats a few idiosyncratic lexical items: lítill, mikill (also dat. sg. f. mikl-ri), annarr (also gen. sg. f. annr-ar and dat. öðuru(m)), minn, hinn; lús, dís, etc.¹

1.1. Formulation of the Consonant Lengthening Rule

Old Icelandic generative morphology contains a Consonant Lengthening Rule whose main objective is to lengthen stem final consonants in certain inflectional forms. The rule is stated in (1), q.v. It reads: Any postvocalic stem final /l n s/ is lengthened

(1) Old Icelandic Consonant Lengthening Rule (Morphological)



if either Condition A or Condition B is satisfied:

Condition A: The form is an adjective and either subcondition

(a) or subcondition (b) is satisfied:

Subcondition (a): The form is in one of the following strong cases: gen. pl., gen. sg. f., dat. sg. f.

Subcondition (b): The form is a short comparative, i.e. one whose comparative marker does not begin with underlying /a/.

Condition B: The form does not contain any inflexional ending, and it satisfies either subcondition (c) or subcondition (d):

Subcondition (c): the form is a strong masculine noun in the nom. sg., or it is an adjective whose stem ends in n, in the strong nom. or acc. sg. m.

Subcondition (d): The form is in the 2nd or 3rd p. sg. pres. ind.

"Stem final" means: word final or followed by an inflexional ending. The noun and the affixed article are separated by a word boundary on the phonological level (Orešnik 1972, which is valid, mutatis mutandis, for Old Icelandic as well); e.g. in the definite acc. sg. hamar-inn "the hammer", r is stem final and word final.²

By adjectives I here mean all words that receive adjectival desinences in their inflexion; thus, many pronouns, numerals and participles are adjectives. Similarly nouns are here words receiving substantival desinences in their inflexion.

1.2. Illustrations of, and exceptions from, the Consonant Lengthening Rule. For examples of rule (1), see (2).

(2) Illustrations of rule (1)

Case (a): sael- "blessed, happy": gen. pl. saell-a, gen. sg. f. saell-ar, dat. sg. f. saell-i

gjoful- "munificent": gjofull-a, -ar, -i

vaen- "fine, beautiful": vaenn-a, -ar, -i

opin- "open": opinn-a, -ar, -i

vís- "wise": víss-a, -ar, -i

ýmis- "alternate, different": ýmiss-a, -ar, -i

Case (b): sael-: short comparative stem sael-, e.g. saell-i

gjoful-: gjofull-, e.g. gjofull-i (and gjoflar-i)

vaen-: vaenn-, e.g. vaenn-i

opin-: (opn-ar-i)

vís-: (vís-ar-i)

ýmis-: --

} no suitable
examples

Case (c): stól- "chair": nom. sg. m. stóll

djoful- "devil": djofull

sael-: saell

gjoful-: gjofull

stein- "stone": steinn

himin- "heaven": himinn

vaen-: vaenn (acc. sg. m. vaen-an, *vaenn)

opin-: opinn, acc. sg. m. opinn

ein- "one, alone": nom. sg. m. einn, acc. sg. m. einn, ein-an

ís- "ice": íss

vís-: víss

ýmis-: ýmiss

Case (d): skín- "shine": 2. p. sg. pres. ind. skínn

aus- "pour, pump": eyss

víl- "will": vill

The rule has a number of exceptions, notably from cases (c-d); see (3). Notice that cases such as 2.3p. sg. pres. ind. ven-r of

(3) Examples of exceptions from cases (1 c-d)

Case (c): No lengthening of the stem final /l n s/ in the nom.

sg. m.:

son- m. "son": nom. sg. son beside son-r and very rare sonn, sun (Noreen 1923:201)

Magnús- proper name: nom. sg. Magnús, *Magnúss

For additional, quite numerous, examples see Noreen 1923:210, 248-49, 268, etc.

Case (d): no lengthening in the 2.3p. sg. pres. ind.:

vil- "will": 2.3p. sg. pres. ind. sometimes vil

beside the regular vill (and vil-r)

skín- "shine": skín beside the regular skínn

frjós- "freeze": frýs beside the regular frýss, cf.

Noreen 1923:210.

venja "accustom" instead of venn, or stel-r of stela "steal" beside stell, etc., are not exceptions from the Consonant Lengthening Rule (1), but involve alternations of endings: stel-r contains the ending /r/, and thus does not satisfy the structural description of rule (1), case (d), which requires that the consonant to be lengthened is WORD final; the variant stell has no ending. Similarly, the 2p. sg. pres. ind. vil-t of vilja "will", contains the ending /t/; there is also a variant with the ending /r/, vil-r, and two without any desinence, vill, with regular lengthening of l, and vil (Noreen 1923:360); only the last form is an exception from rule (1), cf. (3). Nominative singular masculine forms such as svan-r "swan" and lin-r "mild" are parallel to ven-r, stel-r as far as lack of lengthening is concerned.

1.3. Comments on the formulation of the Consonant Lengthening Rule

The consonant to be lengthened by the Consonant Lengthening Rule (1) is postulated to be preceded by a vowel: Post-consonantal /l n s/ are not lengthened in the environments indicated, cf. nom. sg. m. frjáls "free", not frjáls. The rule operates only upon stem final segments; e.g. the adjective laus- "loose" does not become llaussi, with long l, in the dat. sg. f., although the l of its

underlying representation /laus+i/ satisfies all the conditions of case (1 a), except the stipulation that the segment to be lengthened must be stem final.

In the cases (a-b) the consonant to be lengthened must be followed by a vowel, otherwise no lengthening takes place; cf. gen. pl. van-ra of van- "accustomed", *vann-ra.

Case (a) of (1) must be limited to the strong cases of adjectives, for no lengthening takes place in the weak gen. pl., gen. sg. f., and dat. sg. f.: weak gen. pl. sael-u of sael- "happy, blessed", not saell-u. - Case (a) is limited to adjectives, because nouns do not undergo lengthening in the gen. pl., gen. sg. f., and dat. sg. f.; cf. stein- "stone", gen. pl. stein-a, not steinn-a. - Case (a) is limited to the gen. pl., gen. sg. f., and dat. sg. f., because there is no lengthening in the remaining case forms; cf. nom. sg. f. gomul, not gomull, of gamal- "old".

Case (b) of (1) is limited to the SHORT comparatives, because no lengthening is observed in the LONG comparatives; the comparative of the adjectival stem vis- "wise" is long, vis-ari, and there is no lengthening of s (*vi~~s~~s-ari). And there is no lengthening of n in the long comparative opn-ari of opin- "open", as follows from the fact that the vowel i before n has undergone vowel syncope; vowels before lengthened consonants do not undergo syncope, cf. dat. sg. f. opin~~n~~-i.

Definite weak noun case forms such as nom. sg. haninn "the rooster" is to be analyzed as hani~~#~~nn, not han~~#~~i~~n~~n, as proved by the definite acc. sg. form hana~~n~~-nn, showing that the final vowel of the noun stem wins over the initial vowel of the affixed article. There can be no lengthening of n in haninn, because its n is not word final.

Case (c) is limited to non-verbal inflexional forms. Speaking of nouns first, case (c) has to be limited to the nom. sg. m., for case (c) does not apply outside nominative, or singular, or masculine, of nouns. Cf. acc. sg. aptan (*aptann) of aptan- m. "evening"; nom. sg. sin (*sinn) of sin- f. "sinew"; nom. pl. kyn (*ky~~n~~n) of kyn- n. "kin". As to the adjectives, there is a very special provision for adjectives whose stems end in n: the latter is lengthened in the strong acc. sg. m. if word final; therefore acc. sg. m. einn, but ein-an (*einn-an), both of ein- "one, alone". Stem final l and s are not lengthened in the strong acc. sg. m., but this fact need not be mentioned extra, for there are no adjectival stems in l or s which satisfy the structural description of the Consonant Lengthening Rule AND stand in the strong acc. sg. m. Apart from the special case just mentioned, the stem final

n l s are also lengthened in the strong nom. sg. m. The limitation to this case form is necessary, because - apart from the situations enumerated in cases (a-b) and the just discussed acc. sg. m. - there is no lengthening of word final l n s outside the nominative, or the singular, or the masculine, or if the l n s are not word final. Cf. nom. sg. f. and nom./acc. pl. gomul (*gomull) of gamal- "old"; nom. sg. m. fpl-r (*foll-r) of fpl(v)- "pale" (l is not word final).

Case (d) has to be limited to non-first persons of verbs because no lengthening takes place in the first persons; cf. lp. sg. pres. ind. skín (*skínn), which is minimally different from the 2.3p. sg. pres. ind. skínn. Case (d) must be limited to the forms without endings because no lengthening of the stem final consonant can be observed if it is followed by a desinence; cf. ven-r (*venn-r). The limitation to the singular is automatic because there are no plural finite forms which would satisfy the structural description of the Consonant Lengthening Rule (1). Case (d) must be limited to the present tense: the 3p. sg. pret. ind. stal of stela "steal" does not undergo lengthening of the stem final consonant (*stall). Case (d) is limited to the indicative mood because, say, 2p. sg. imperative, e.g. stel of stela, does not undergo lengthening (*stell).

1.4. The ordering relations of the Consonant Lengthening Rule (1)

The rule must follow the morphological rules which assign endings. This follows from (1), cases (c-d), where the Consonant Lengthening Rule (1) needs the information that the word on which it operates contains no ending. Unless the scanning power of the rules is greatly increased, such knowledge is available only after all the rules which assign endings have applied.

On the other hand, rule (1) precedes the (phonological) Vowel Syncope Rule. The lengthening of the stem final consonant in, say, dat. sg. gamall-i must take place before the Vowel Syncope Rule applies, otherwise the latter rule would delete the unaccented a of the form, and yield *gaml-i.³

As far as it is known at present, the Vowel Syncope Rule is the earliest rule in Icelandic generative phonology. I have so far not found anything contradicting the assertion that the Consonant Lengthening Rule (1) precedes all the phonological rules in the ordering.

I have characterized the Consonant Lengthening Rule (1) as belonging to the morphological component. In this I have been led by the

circumstance that it precedes all the phonological rules in the ordering, and by the fact that the rule is full of morphological information. In the absence of a principled criterion delimiting morphology from phonology, my characterization can only be tentative.

1.5. The fate of the Consonant Lengthening Rule (1)

During the development into Modern Icelandic the Consonant Lengthening Rule (1) gradually lost its domain, and it is no longer in the language. In some cases it was replaced by the infixation of /d/, see section 2 below. Each case of rule (1) will now be treated separately.

Case (a). In word forms such as gen. pl. saell-a, gjofull-a, vaenn-a, etc. the long l developed into /dl/, and long n in many instances into /dn/, so that d-infixation has been in the grammar to help produce these and such forms at least since the fourteenth century, from which period are found the earliest preserved reliable examples showing the change as accomplished (Benediktsson 1963 a:158). In words with stem final s, e.g. gen. pl. viss-a, ýmiss-a, the endings -a, -ar, -i were replaced by the regular adjectival endings -ra, -rar, -ri, respectively, around 1300 (Noreen 1923:200), whereupon such words no longer satisfied the structural description of the Consonant Lengthening Rule (1).

Not enough is known as yet about the time when the long non-final n of case forms such as gen. pl. opinna, of opin-, was shortened. The unaffected modern pronunciation admits only short n after an unstressed vowel (see, e.g., Benediktsson 1963 b:148, on úlfana vs. úlfanna). On the other hand, Bandle (1956:104) considers it quite possible that etymological long n was still preserved in the said position at the time of the writing of the Guðbrandsbiblía, published in 1584. An investigation of this chronological problem is a desideratum.

In conclusion, case (a) of the Consonant Lengthening Rule (1) fell into disuse gradually. It disappeared from the language when the long n of unaccented syllables had been simplified in pronunciation.

Case (b). All short comparatives which in Old Icelandic underwent case (b) of rule (1) contained stem final l or n, never s. (The adjectives in s formed long comparatives in -ari.) In the fourteenth century even the ll and nn of these comparatives were changed to /dl/ and /dn/, whereupon case (b) of rule (1) was superseded by d-infixation.

Case (c). Nominative singular case forms such as stóll, djofull,

saell, gjöfull, steinn, vaenn, of (2c), underwent the change of ll to dl, and nn to dn, in the fourteenth century. In this function case (c) has been substituted for by d-infixation. Nominative singular case forms such as himinn, opinn lost the length of their word final nn by the sixteenth century at the latest, if not even earlier (Bandle 1956:105-8), through a sound-law simplifying word final nn preceded by an unaccented vowel into short n. Case (c) thus became unnecessary for such instances. A similar, presumably even earlier, change, with similar consequences, affected the nom.sg. forms íss, víss, ymiss (Noreen 1923:210). In conclusion, case (c) disappeared from the language in the sixteenth century at the latest.

Case (d). Forms such as 2.3p. sg. pres. ind. skinn lost the length of their final consonant before the fourteenth century, so that they could not participate in the change of nn to dn. The process which brought this change about is not well understood (Noreen 1923:210). Forms such as eyss simplified their ss at the same time as íss, víss, ymiss, at the latest. Forms such as vill were almost exceptional in Old Icelandic; many were early replaced by forms containing the normal 2.3p. sg. pres. ind. ending -r, e.g. stell of stela "steal" became stel-r, and fell outside the scope of case (d), since their l was not word final any longer. The 2p. sg. pres. ind. vill was early replaced by vil-t and likewise fell outside the scope of the rule. Only the 3p. vill remained and underwent the regular phonetic change of ll to dl in the fourteenth century. The form vill is so exceptional that it is even uncertain whether its /d/ is now produced by d-infixation. It is much more likely that vill is a suppletive formation. Thus case (d) disappeared from the language in the fourteenth century at the latest.

2. On the infixation of d in Modern Icelandic. In Modern Icelandic generative morphology the role of the Consonant Lengthening Rule (1) has been partially assumed by new inflexional endings involving the infixation of /d/. For instance, gen. pl. saell-a [saɪl̥a], of saell-, is now analyzed as the stem saell- with d infixed before the stem final l, plus the genitive plural case desinence /a:/ [saɪl̥d+a/]; the form contrasts with the acc. sg. f. saell-a, without the infixed /d/. In the nom. sg. n. saell [saɪl̥], the ending consists of the infixed d only; contrast nom. sg. f. saell, without infixed d. Generally speaking, the sound-laws producing dl < ll and dn < nn have brought about two new declensions in Icelandic, one involving masculine noun, and another adjective, stems in l and n. For examples see (4).

(4) Illustrations of the infixation of d:

sael- "happy, blessed", strong nom. sg. m. saell, gen. pl. saell-a,
gen. sg. f. saell-ar, dat. sg. f. saell-i (colloquial variants saell-ra, -rar, -ri)

mikil- "big, great": mikill, mikill-a, mikill-ar, mikill-i
(colloquial variants mikill-ra, -rar, -ri)

stól- "chair": nom. sg. stóll

gaffal- "fork": gaffall

vaen- "fine, beautiful": vaenn, vaenn-a, vaenn-ar, vaenn-i (coll. vaenn-ra, -rar, -ri)

stein- "stone": steinn

The membership of non-verbal stems in the two declensions involving infixed d is predictable. A non-verbal stem is inflected in the new way if it ends in an accented vowel plus (short) l or n, whereby the accented vowel has to pertain to the following set: the diphthongs, e.í (ý), and ú. (For e see below.) Cf. sael-, stól-, vaen-, stein- of (4). The colloquial genitive plural case forms such as saell-ra, vaenn-ra, gen. sg. f. saell-rar, vaenn-rar, dat. sg. f. saell-ri, vaenn-ri, all with infixed d, contrast with gen. pl. gul-ra, of gul- "yellow", and van-ra, of van- "accustomed", etc., without d. - In addition, a non-verbal stem is inflected in the new way if it ends in an unaccented vowel plus l, cf. gaffal-, mikil- of (4).

Pairs such as saell-ra vs. gul-ra of the previous paragraph are evidence against a Modern Icelandic morphological rule of d-infixation. Such a rule would have to mention the set of vowels consisting of the diphthongs, e, í (ý), ú. This set, however, does not seem to form a natural class in the sense of Halle 1958 [1964:328], Chomsky & Halle 1968:335ff., and no other rule of Icelandic grammar seems to have to explicitly mention the same set of vowels. For this reason a rule listing this set of vowels must be suspect if no case in its favour can be made.

The set of vowels just discussed includes e. Cf. the old loanword klén- "snug, little", with d infixed as in certain forms of vaen- in (4). Cf. also the more recently naturalized adjectival stem pen- "nice, neat, handsome", with nom. sg. m. pe[gl̥n] or pen (Böðvarsson 1963 s.vv. pen, penn; my attention has been drawn to pen- by Tryggve Skomedal, viva voce, 1966); I lack data on the strong gen. pl., gen. sg. f., and dat. sg. f. of this adjective. I know of no other Icelandic noun or adjective stems ending in accented en. Incidentally, pen- is not the only stem of the appropriate kind displaying optional absence of d-infixation. For instance,

þjón- m. "servant, waiter", which now has a regular nom. sg. m. þjónn, with ð, often did not undergo this infixation in the sixteenth to nineteenth centuries (Þórolfsson 1925:77).

There is also a single case of /l/ ~ /dl/ in the conjugation: the 3p. sg. pres. ind. vill, as against, say, the lp. sg. pres. ind. vil, of vilja "wish, want". The form vill can be accounted for on the lexical level, see (5). Other more or less idiosyncratic traits of vilja, such as -t of the 2p. sg. pres. ind., j-initial endings in the present outside the singular of the indicative and imperative moods, and -jað in the supine, are to be accounted for by the mechanism for endings, and are undoubtedly to a great degree also registered in the lexical entry of which (5) is a part.

(5) Partial lexical entry of Modern Icelandic vilja:

/vIdl/ in the 3p. sg. pres. ind.

/vll/ elsewhere ⁴

The adjective/numeral/pronoun einn "one" has two strong acc. sg. m. forms, einn and ein-an, the latter being used predicatively in the meaning "alone", Einarsson 1945:65. The (only) accusative singular masc. of the indefinite pronoun neinn is neinn. Since the two acc. sg. m. case forms einn and neinn are exceptional in another respect as well (no ending instead of, or beside, the expected -an), they are most likely to be accounted for on the lexical level; this is especially clear with einn, where the difference between the acc. einn and ein-an is associated with a difference in meaning and syntactic behaviour.

The cases of infixed ð not covered by the new declensions either stem from lexical representations, or are due to the phonological sandhi rule which inserts a ð in the context /r_n, l/ (the rule is not treated in the present paper; notice that it must follow the vowel syncope rule in the ordering, Orešnik 1972:24). The "lexical" case can be illustrated by villa [vIdla] "error" (as against villa [vll:a] "villa"), and innumerable other examples. ⁵

The declension of n and l final masculine noun stems which undergo ð-infixation can be ad hoc called NOUN DECLENSION (A), and the nouns which are inflected according to declension /A/ must be marked with [+Declension (A)]. Thus, stól-, gaffal-, and stein- of (4) must be marked with [+Declension (A)], whereas, say, svan- "swan" and hval- "whale" pertain to another declensional type (nom. sg. svan-ur, hval-ur). Biskup- "bishop", with its lack of ending in the nom. sg., belongs to a third

declensional type. The noun stem þjón- must once have vacillated, as far as its nominative singular is concerned, between the declensional type of biskup- (nom. sg. þjón) and declension (A) (nom. sg. þjónn). - The relationships among the sundry declensional types of nouns and adjectives will not be discussed here.

The declension of the n and l final adjective stems which undergo d-infixation can be here ad hoc called ADJECTIVE DECLENSION (B), and the adjectives inflected in this way must be marked with the feature [+Declension (B)]. Thus, sael-, mikil-, and vaen- of (4) are marked with [+Declension (B)], whereas, say, gul- "yellow" and van- "accustomed" are marked as pertaining to another declensional type; dýr- "expensive", megn- "pungent", etc., whose strong nom. sg. m. equals their respective stems, belong to a third type. The adjective pen- vacillates, at least as far as its strong nom. sg. m. is concerned, between the declension of dýr-, megn-, and declension (B).

Just as adjectives are lexically subcategorized into several declensional types, they must be lexically subcategorized into comparison types. For instance, sael- and vaen- of (4) belong to a comparison type which includes d-infixation in the comparative: comparative saell-i, vaenn-i, etc. Their colloquial variants saell-ri, vaenn-ri can be contrasted with comparatives such as falleg-ri of falleg- "handsome", with -ri and without d-infixation. - There is no straightforward relationship between the comparative type of sael-, vaen-, and what has above been called declension (B). Cf. vesal- "wretched", comparative vesl-ari/vesall(r)-i, and vesael- "sick", comparative vesaell-i.

3.1. Lengthening of stem final r. Historically and structurally parallel to the examples of (2) are quite as many with stem final r. Some are enumerated in (6), q.v., where the letters (a-d) refer to the respective cases (a-d) of rule (1) whereas (e) has no correspondence in (1). Dat. sg. f. stórri, to take one of the items enumerated in (6), came into being in pre-literary Icelandic, its long r stemming from the amalgamation of the r of the ending -ri with the stem final r. The same is true of all the other case forms listed in (6). Thus one way of treating these forms would be to postulate underlying, say, dat. sg. /stór+ri/, parallel to, say, /spak+ri/ of spak- "quiet, wise". The same is true of all the other cases of (6). However, I believe that the Old Icelandic strong dat. sg. f. stórri must be analyzed, on the morphological level, so that the ending begins with a LONG r, and is not

- (6) Examples of lengthened stem final r
- (a) stór- "big, great": gen. pl. stórr-a, gen. sg. f. stórr-ar,
dat. sg. f. stórr-i
okkar- "our (dual)": okkarr-a, -ar, -i
- (b) stór-: short comparative stem stoerr-, e.g. stoerr-i
- (c) stór-: strong nom. sg. m. stórr
okkar-: okkarr
- (d) far- "go, travel": 2.3p sg. pres. ind. ferr
- (e) eyr f. "gravelly bank": nom. sg. eyrr
mer- "mare": merr

ADDED to the stem stór-, but REPLACES its final r. After the replacement, which takes place in the morphological component, we get /stór:i/, the phonological representation of the case form in question.

Endings such as -rri of ný-rri, of ný- "new", which are added to stems, can be called ADDED endings. Endings such as -rri of stórr-i, which replace one or more segments of stems, can be called REPLACING endings. In the morphological representations the segments to be replaced by replacing endings are here preceded by the REPLACEMENT SIGN (, i.e. opening round bracket. The replacements take place within the morphological component, so that no replacement signs appear in phonological, or later, representations. It is an open question what happens to the morpheme boundary between the segment(s) to be replaced and a replacing ending, during the replacement. - The same affix can be an added ending in one form, and a replacing one in another. As far as I can see, an added ending and its homophonous replacing allomorph are related as follows. The replacing desinence is used if the stem final segment is phonetically similar to the initial segment of the termination, say, if the two segments are both oral dentals/alveolars; otherwise the ending is added to the stem. Cf. stó(r+rri) vs. ný-rri. There may also be cases where the distribution of the two allomorphs cannot be predicted in such a simple way; moreover, PRONETICALLY SIMILAR remains to be defined.

3.2. Arguments in favour of the analysis. The following can be said in favour of the replacing endings and of my analysis of stórr-i:

(I) Old Icelandic nom./acc. sg. glatt, of glad- "glad", is here analyzed, on the morphological level, as /gla(á+t:)/; i.e. in the morphological component, the stem final /á/ is replaced by the case desinence /t:/, to yield the phonological representation /glat:/, which minimally deviates from the systematic phonetic representation of the case form

glatt, and is therefore, *ceteris paribus*, maximally motivated. The alternative morphological representation /glɑ̃+t/ or /glɑ̃+t:/ would obliterate the need for positing replacing endings (beside added ones) in the theory, at least as far as glatt is concerned. At the same time, however, that representation would exact a phonological representation /glɑ̃+t/ or /glɑ̃+t:/, which deviates from the corresponding systematic phonetic representation of glatt more, and is consequently, *ceteris paribus*, less motivated, than the phonological representation /glat:/. Furthermore, the phonological representation /glɑ̃+t(:)/ exacts the existence of a phonological rule producing /t:/ out of /ɑ̃+t(:)/ in simplex words; there is a good chance that such a rule need not be posited at all if replacing endings are introduced into the theory. The example glatt shows that, while disallowing replacing endings leads, *ceteris paribus*, to a simpler theory of language, that degree of simplicity is achieved at the cost of the motivation for certain phonological representations. In other words, we must choose between a simpler theory and more abstract phonological representations (e.g. /glɑ̃+t(:)/) on the one hand, and a less simple theory and more natural phonological representations (e.g. /glat:/) on the other. I opt for the latter, and thus for replacing endings. - Once replacing endings are allowed in morphology, they can be employed whenever, *ceteris paribus*, their use leads to better motivated phonological representations than the utilization of some other tool does.

(II) If the Old Icelandic dat. sg. stórri is postulated to originate in the morphological representation /stó(r+r:)/, and not from /stór+ri/, there is no need for a rule that coalesces /rr/ into /r:/ in simplex words, in Icelandic synchronic grammar (although such amalgamation can undoubtedly take place as a historical process; stórri HAS arisen from stór+ri, diachronically speaking). More generally, there is presumably no need for phonological rules coalescing whichever two equal consonants into one long consonant, in simplex words. Cf. however, bundn- in §3.3.

(III) It is generally assumed that the length of r in ný-rrí did not come into being through a sound-law. It is considered an analogical creation under the influence of stórri and similar forms, where rr is lautgesetzlich (Bandle 1956:302, with further references). If so, there arises the question of the mechanism which helped create -rrí on the basis of stórri. In my opinion it must be postulated that the learners of the language were unable to recognize in stórri the same ending as in spak-ri and ný-ri, although they could perceive a similarity between the auslauts of stórri, spak-ri, and ný-ri. They identified - and this was

the first crucial step - the rr of stórri as the ending, not to be added to the stem stór-, but to replace the stem final r of stór-. Schematically: stór- + -rr → stó- + -rr → stórri. In this process a vowel final stem came into being temporarily, and the ending was added to it. The original distribution of the ending -rr must have been construed as, "added to the vowel final adjective stems which had arisen from r-final stems through the deletion of the stem final r, in the strong dative singular feminine." Soon this distribution must have been simplified through the omission of the information on the source of the vowel final stems to which the ending -rr could be affixed. This was the second crucial step. The desinence -rr could now be "added to vowel final adjective stems, in the strong dative singular feminine." This led to the introduction of -rr into the strong dative singular feminine case forms of vowel final stems such as ný- "new": the dat. sg. f. ný-ri was replaced by ný-rr at the beginning of the literary period.

The same analysis was made in the gen. sg. f. stórrar (and led to ný-rar > ný-rrar), in the gen. pl. stórre (and led to ný-ra > ný-rra), in the short comparative stem stoerr- (and led to ný-r > ný-rr), which existed beside nýj-ar-, Noreen 1923:300), in the nom. sg. m. stórr (and led to ný-r > ný-rr). The process also took place in nouns, so that nom. sg. mó-r "moor; sea gull" occasionally became mó-rr, and similarly in some other vowel final substantival stems (Noreen 1923:253, 256). The type represented by the nom. sg. mó-rr, ný-rr was obliterated in the further history of the language, and it is doubtful that it had ever been as fully spread as the remaining innovations mentioned above. The obliteration of the type is presumably due to the change which also shortened the r of nom. stórr, rendering stór.

In the same vein, I submit that the ending of the gen. sg. húss of hús- "house" is not /s/, on the analogy of the -s in, say, gen. sg. barn-s of barn "child", but a long /s:/, which is substituted for the final s of the stem hús-: hús- + -ss → hú- + -ss → húss. The genitive ending spread outside its original domain to vowel final stems: gen. sg. mó-s of mó-r "moor; sea gull" became occasionally mó-ss, and similarly with a number of other vowel final stems (Noreen 1923:253, 255 [where the desinence -ss is said to be even somewhat more frequent than short -s in the neutral vowel final a-stems such as bú "house, estate"], 256, 257 [gen. híráis(s), kvaedis(s)], 269). The situation was similar in adjectives: gen. sg. m./n. lauss was analyzed as containing the replacing ending -ss, and the latter spread to vowel final stems, so that

there arose, at least occasionally, gen. sg. m./n. ný-ss and other similar forms (Noreen 1923:291, 296). In the further development, -ss was obliterated in vowel final stems, both substantival and adjectival, so that now there are gen. mó-s and ný-s, etc. The simplification of -ss to -s is probably due to the change which also affected forms such as nom. sg. íss "ice" > ís. In the stems in s the simplification did not take place in the genitive singular, so that there are still gen. húss, íss and lauss; the ending -ss has been preserved for unknown reasons here (Bandle 1956:99, 100).

I postulate a similar development in the strong nom./acc. sg. n. ný-tt. Cases such as nom./acc. sg. n. hvítt of hvít- "white", foett of foedd- "born", breitt of breið- "broad", were analyzed as containing the termination long t, /t:/, which replaced the final dental of the stem in the strong nom./acc. sg. n.: hvít-+t → hví-+t → hvítt, etc. Then the requirement that the vowel final stem to which -tt is added originate from a dental final stem through the deletion of the stem final dental was dropped, and the -tt spread to other vowel final adjectival stems: e.g. ný-t was superseded by ný-tt.

A similar development may have taken place in the 2p. sg. pret. ind. active of Old Icelandic strong preterites whose stems ended in a vowel; e.g. bjó-t of búa "dwell" became bjó-tt. One factor contributing to the introduction of -tt into vowel final preterite stems such as bjó- were 2p. sg. pret. ind. forms such as sló-tt of slá "strike" and hló-tt of hlæja "laugh", where the -tt is lautgesetzlich (from stem final *x and desinential -t). (See Noreen 1923:205, 362). But a development parallel to that postulated for the nom./acc. sg. ný-tt may have helped as well. Even in oldest Icelandic, strong preterite stems ending in vowel + a, occasionally also in vowel + t, had the termination -tt in their 2p. sg. pret. ind.: preterite stem reið- of ríða "ride", 2p. reitt; stem stóð- of standa "stand", 2p. stótt, etc. From such cases -tt may have spread to vowel final preterite stems such as bjó-, yielding 2p. bjó-tt. This termination would undoubtedly have survived into Modern Icelandic, had it not been superseded by another ending, -st, which came into use in the first half of the sixteenth century (Þórólfsson 1925:111).

Similar developments can be observed outside Icelandic. A well known case in point is the disputed origin of the so-called third conjugation preterite stems in -dd- in Norwegian and Swedish, e.g. Swedish tro "believe", pret. trodde. It has long ago been observed that verbs with regular dd in their preterites, such as medieval Swedish fōðha "give birth" (pret. fōdde), must have played a role in the creation of the

preterite stems such as trodde. For the history of the problem, see Jansson 1947. Cf. also Bandle 1973, with further references. Preterite stem f3dd- must have been analyzed as present stem f3dh- minus the stem final dh plus the preterite suffix -dd-: f3dh- + -dd- → f3- + -dd- → f3dd-. The preterite suffix -dd- was initially affixed only to vowel final weak preteritival stems that had arisen through the deletion of the stem final ð in preteritival stems ending in vowel plus ð. This distribution was modified so that the requirement concerning the origin of the vowel final stems to which -dd- could be added was dropped. Subsequently -dd- began to be affixed, in the appropriate morphological context, to any vowel final stem, also to tro-, etc.

What was above several times referred to as "the simplification of the distribution" of a suffix does not necessarily take place. For instance, in Icelandic the same conditions as in Swedish and Norwegian obtained in the verb types exemplified here by f3dha and tro, yet the distribution of -dd- was not broadened to include any type of vowel final stems. On the other hand, the process can remain limited to a dialect or to a few lexical items in a dialect. Such seems to be the situation with respect to preteritival -dd- in Danish, where preterites of the type trodde are preponderantly found in stdansk dialekt. See Brøndum-Nielsen 1971:177-78, also 175 (skedde), 413 (tedde), 414 (trodde), 424 and 428 (hadde), 444 (titte).

3.3. Claims about language acquisition and grammars. The process as I have outlined it above makes certain claims about language acquisition and grammars:

Language learners cannot analyze a long consonant as arisen from two subsequent instances of the same consonant separated from each other by a morpheme boundary (e.g. stórr ≠ stór+r), although they assumedly can perceive the phonetic similarity between two allomorphs of which one contains a long consonant C where the other contains a short C (e.g. the similarity between -ri and -rri). One possible way of adding endings to stems is by substituting a consonant initial ending for the last consonant (consonants?) of the stems ending in vowel plus consonant. The vowel final stem which is produced as a transitory phenomenon in this process has sufficient psychological reality to play a role in the description of the distribution of the ending added in the manner just outlined.⁶ The identification of stems can be made by an appeal to what has happened to those stems at earlier

stages of derivations; however, the grammar favours the omission of such clues from grammatical statements (rules), as shown, e.g., by the development trōðhe > trodde described above.

There is no overriding tendency for languages to hold the number of allomorphs of any ending at a minimum. (Otherwise the ending -rri would not come into being.) Language tolerates much allomorphic suppletion in endings. The creation of vowel final stems out of consonant final stems through the deletion of the final consonant and the addition of an ending to the vowel final stem thus created are two relatively independent processes. On the other hand, the historical (diachronic) amalgamation of two equal consonants into one long consonant seems to proceed unimpeded, as forms such as dat. sg. f. stōrri (from pre-literary stōr-ri after the syncope of the vowel that once intervened between the two r's) witness. It is only when confronted with a finished form of the type stó[r:li] that language learners cannot reverse the historical process: Two equal consonants amalgamated into one long consonant are irrecoverable.

It is possible that the claims made in the present section are only valid for languages in which short and long consonants contrast in simplex words, such as Icelandic, Norwegian, Swedish, Old English, Finnish, Italian, Latin, etc. - There is no indication so far that the unanalyzability-of-long-consonants principle is also valid for such "late" long consonants as found in, say, the contracted stem bundn- [bʏn:-] of bundinn "bound".

The mechanism which has here been assumed to have brought about the change of, say, ný-ri to ný-rri is not inherently limited to cases involving endings beginning with long consonants. Rather, the mechanism can create "analogical" forms whenever vowel final stems obtain during the affixation of replacing endings. However, cases not involving long consonants are doubtful in Icelandic. Thus Haegstad (1942:35) reports having heard second person singular preterite indicative forms dró[x]st of draga "draw", and sló[x]st of slá "beat", in Southern Icelandic dialect at the beginning of this century. Both forms rhyme with the 2p. sg. pret. ind. tók-st of taka "take". I interpret the two dialect forms as having arisen through the addition of the desinence -xst to the respective preteritival stems dró- and sló-. I see the origin of -xst in verbal forms such as tók-st, where final [xst] arose through a sound-law spirantizing the stem final stop k to [x] before st. At least some speakers of Icelandic must have been unable to perceive /k+st/ in the phonetically realized [xst] of tók-st (although k appears on the phonetic level in the remaining forms of the

pret. ind. paradigm: tók, tók-um, -uá, -u), and have therefore analyzed the form as /tók(xst)/, with the replacing ending /xst/. (Notice that the k to be replaced by xst is phonetically similar to the initial segment of the new termination -xst.) During the production of tólx]st a vowel final stem comes into existence: tó+xst. The original distribution of the ending -xst is that it is affixed to vowel final stems which had arisen from consonant final stems through the truncation of the stem final consonant. The modified distribution of the ending is that it is affixed to vowel final stems. As a result -xst begins to compete with the ending traditionally affixed to vowel final stems in the second person singular preterite indicative of strong verbs, -st, and in a few cases (slólx]st, drólx]st) wins the battle in dialect.

If this process took place where underlying /k/ and /s/ were involved, it is conceivable that it occurred even when /p/ and /s/ came into contact under similar conditions. The 2p. sg. pret. ind. of the strong verb súpa "sip" is sau[f]st, a historically correct form. Some speakers must have analyzed it as /söi(p+fst)/, and from such cases a new ending -fst could spread to vowel final stems. Haegstad (1942:46, fn. 3) reports, from Fljótssdalur, East Iceland, dialectal 2p. sg. pret. ind. sá[f]st (actually he states that the form is pronounced "almost" as just shown) of sjá "see", literary form sá-st, without any f.

Slólx]st, drólx]st against sá[f]st contain competing replacing endings. There could just as well have arisen, say, sló[f]st and sá[f]st. A similar phenomenon can be observed in the Norwegian-Swedish third conjugation. There -dd- was generalized after vowel final stems. However, a replacing allomorph -tt- was also available: the preterite of Swedish böta is bötte, morphologically /bō(t+t:t)e/, and from such forms -tt- can spread to vowel final stems. Forms such as nätte instead of the more usual preterite nådde of nå "reach" are to be found in the Båhuslen and Southern Östfold dialects, see Seip 1949:97.

Consider now the gen. sg. á[r]sins "the year" (with affixed article), which Haegstad (1942:46) reports from East Iceland (most probably from Fljótssdalur). The literary form is ársins, with voiceless r. Haegstad implies ibidem in fn. 3 that the form is pronounced ássins in Fljótssdalur. The unusual alternative á[r]sins must be due to the substitution of -fs for -ss. The origin of -fs must be sought in those genitive singular forms of p final nominal stems in which /p+s/ resulted in [fs]; cf. gen. sg. skips, pronounced [sk_ifs] beside [sk_ips], of skip "ship"; gen. sg. kaups [-fs] and [-ps] of kaup "bargain", skáps [-fs] beside [-ps] of

skápur "wardrobe", etc. Kauflfs must have been analyzed as /kōi(p+fs/, and from here /fs/ spread to ár.⁷

3.4. The fate of the rr initial replacing endings. The Old Icelandic replacing ending -rr was abolished in the further history of the language, in the fourteenth century after an originally long vowel, a little later after an originally short vowel: stórr > stór, ferr > fer. In feminine iō-stems a new ending superseded -rr: the eyrr, merr of (6 a) are now eyr-i, mer-i. The Old Icelandic replacing endings -rra, -rri, -rrar etc. preceded by an unstressed vowel have had their rr shortened by modern times, although it has not yet been ascertained when exactly this happened: annarrar > annarar, etc. The remaining rr initial replacing endings have been preserved: nýrri, stórri, staerri, etc.

3.5. On an alternative to the Consonant Lengthening Rule. Consonant Lengthening Rule (1) states a list of endings, their distribution, and the generalization (whose significance is not proved) that the endings in question somehow belong together. The option remains open that the functions of the rule should be entrusted to the mechanism for the assignment of endings. In that case we need replacing endings such as /l:/, /n:/, /s:/, similar to the /r:/ initial endings discussed above. The morphological representation of, say, the Old Icelandic strong nom. sg. m. saell would then be /saI(l+l:/, and its phonological representation /saIl:/. This solution guarantees just as natural phonological representations as the alternative one utilizing the Consonant Lengthening Rule. It is only fair to mention that certain factors actually speak in favour of the solution just outlined:

(a) Notice that, although I posit the ending -ss in the gen. sg. íss, lauss, I do not analyze the corresponding nominative singular forms íss, lauss as containing the desinence -ss, but a lengthened stem final s. This difference in treatment is based on the circumstance that the gen. sg. -ss has had a near parallel and support in the -s of the genitives such as barn-s, spak-s, whereas the -ss of the nominatives was not supported in this way; the nominative ss viewed as lengthened stem final s had the structural support of ll, nn in the types saell, vaenn, whereas the genitival -ss enjoyed no such support. - I evaluate this type of argument as not decisive, seeing that the parallel cases involving rr do not lead to any difficulties although I do not relegate them to the Consonant Lengthening Rule when arguments such as those just stated would warrant that.

(b) The gradual erosion of the Consonant Lengthening Rule (1) described in §1.5 raises the question of the successive intermediate formulations of the rule during its disappearance by degrees. The abolishment does not seem to follow any immanent logic, but is mostly governed by sound-laws; where it is not, as in the above mentioned case (in §3.2) of the nom. sg. is (<iss) vs. gen. sg. iss (<iss), the natural impression is that the change of nom. iss to is is due to the substitution of the ending -ø for the replacing ending long s, and that the structure of the Consonant Lengthening Rule has no say in the process.

For these reasons the formulation of the Consonant Lengthening Rule and whatever follows from that formulation has a preliminary character.

4. A regular paradigm and special cases

4.1. The lexical entry of OPINN

We can now proceed to the sample derivations of the members of a regular paradigm, and then discuss some exceptional cases. I begin with the derivations of the sundry case forms of any Old Icelandic adjective in -inn (opinn "open", kristinn "Christian", etc.). The lexical representation of such adjectives contains just one stem, say /opin/, associated with the rule feature [+Vowel Syncope Rule]. In the morphological component first the endings are added to the stem when applicable, e.g. in the gen. sg. m. /s/, in the acc. sg. f. /a/, in the gen. pl. likewise /a/, etc. In the strong nom./acc. sg. n. the ending is not added to the stem, but the stem final /n/ is replaced by /t/: opin- + -t → opi- + -t → opit.⁸ Next the Consonant Lengthening Rule (1) applies in the strong nom./acc. sg. m., gen. pl., gen. sg. f. dat. sg. f.; e.g. dat. sg. f. /opin+i/ becomes /opin:+i/ by (1a). In the phonological component, first the Vowel Syncope Rule applies, say, in the strong acc. sg. f., changing /opin+a/ into /opn+a/ opna. Further phonological rules will not be discussed. Sample derivations are to be found in (7), q.v.

During the development into Modern Icelandic, the long n in unaccented syllables was shortened, so that gen. pl. opinna, gen. sg. f. opinna, dat. sg. f. opinni, now contain no long consonant before their respective case desinences -a, -ar, -i. Nom. sg. m. opinn rhymes with nom. sg. f. opin. In the nom./acc. sg. n. the final t became ð through a sound-law, so that the form is now opið. The modern lexical representation of opin- is /opin/ marked with [+Vowel Syncope Rule], except that the Vowel Syncope Rule must not operate in the strong gen.

pl., gen. sg. f., and dat. sg. f. although the respective terminations begin with vowels. The blocking of the Vowel Syncope Rule in the three cases is probably to be described as emanating from the respective endings, which can therefore be ad hoc marked as $-a^{-VS}$, etc. Cf. footnote 3.

(7) Partial derivations of some case forms of Old Icelandic OPINN

	nom./acc. sg. m.	dat. sg. n.	gen. pl.	nom. sg. f.	nom./acc. sg. n.	gen. sg. m./n.
	opin	opin+u	opin+a	opin	opit	opin+s
Rule (1a)	-	-	opin:+a	-	-	-
Rule (1c)	opin:	-	-	-	-	-
Vowel Syncope	-	opn+u	-	-	-	-
orthogr. repr.	<u>opinn</u>	<u>opnu</u>	<u>opinna</u>	<u>opin</u>	<u>opit</u>	<u>opins</u>

Occasionally the vowel syncope has taken place in the three cases as well. Thus there is gen. pl. liæna of liðinn "past, gone (of time period)" in a manuscript containing folk songs, probably written in Vestfirðir, ca. 1670 (Helgason 1962a: XVI, 3); var. 1. liðena (in a syntactically spoiled context) and liðnra. Further, there is dat. sg. f. aerni of aerinn "very big, over-great", in a folk song translated from Danish and preserved in a ms. written 1819 (Helgason 1962a: XXIV; 1962b: 122); in the next stanza dat. sg. f. aernri occurs in a line that is a repetition of the line containing aerni. Similar forms are even mentioned in the grammatical literature; thus Guðmundsson 1922: 89 adduces gen. sg. f. aldnar of aldinn "old" (the chapter and verse of the form are not quoted, but the author states that he has found it in a text); Þorkelsson 1902: 56 mentions gen. sg. f. fallnar beside fallinnar of fallinn "fallen". In the nineteenth century, Icelandic philologists must have had some knowledge of such forms, as witnessed by the fact that some scholars, e.g. Sveinbjörn Egilsson, even assumed their existence in Scaldic poetry here and there, to the consternation of at least one fellow philologist; cf. Gíslason 1897: 230 (gen. sg. f. liðnar), 231 (gen. sg. f. loðnar), 269-70 (gen. pl. vegna, tekna). - See also the remarks on the exceptional gen. sg. f. annrar below, section 4.2.3.

Even more often, the endings of the gen. pl. $-g$, gen. sg. f. $-ar$, dat. sg. f. $-i$, have been replaced by the endings $-ra$, $-rar$, $-ri$, respectively, before which vowel syncope takes place. Two such cases have been mentioned in passing in the previous paragraph (liðnra, aernri). In the same manuscript as aernri there is also gen. pl. kristnra of kristinn "Christian" (Medal heidinna oc midt i bland kristnra), see Helgason 1962b: 242. Cf. further my

remarks on the dat. sg. f. miklri below, in section 4.2.2. More examples are to be found in Guðmundsson 1922:89, and here repeated sub (8), q.v. Guðmundsson states that he has culled these forms from texts, although he does not quote chapter and verse. Jónsson

- (8) gen. pl. falln-ra of fallinn "fallen"
 heidn-ra heidinn "heathen"
 horfn-ra horfinn "having vanished"
 gen. sg. f. gefn-rar of gefinn "given"
 dat. sg. f. born-ri of borinn "born(e)"
 farn-ri farinn "gone"
 gulln-ri gullinn "golden"
 horfn-ri horfinn "having vanished"
 kristn-ri kristinn "Christian"
 opn-ri opinn "open"

1908:89, who mentions dat. sg. f. flókn-ri and gen. sg. f. flókn-rar of flókinn "complicated", states that such forms are often heard in the spoken language. The literary language avoids them (Þórólfsson 1925:88).

Examples such as those of (8) had come into being by the seventeenth century; Þórólfsson *ib.* quotes dat. sg. f. druknre, gen. sg. f. druknrar, and gen. pl. druknra (of the past part. drukkin "drunk"), from the work of the seventeenth century grammarian Runólfur Jónsson. I interpret these forms as arisen from the phonological representation with the non-contracted stem, e.g. gen. sg. f. /drukkin+rar/, by the Vowel Syncope Rule. The /rar/ of the representation just adduced has replaced /ar/, just as this happened, say, in the gen. sg. f. einn-ar, of einn "one, alone", which became einn-rar.

These examples, which could undoubtedly be multiplied, have so far been ignored in the treatment of the Icelandic vowel syncope. They show that vowel syncope does not only take place before vowel initial, but also before r initial, endings; more generally, syncope takes place before any sonorant initial ending, the vowels and r being the only sonorants that occur initially in endings.

4.2. Exceptional cases. There are also some exceptional paradigms in whose treatment suppletion has to be resorted to - not surprisingly so, for some of the most used adjectival words are involved: lítill "little", mikill "big, great", annarr "other, second", minn "my, mine"

(analogously þinn "thy", sinn "his, her, their", hinn "that", etc.

4.2.1. Old Icelandic lítill. Its lexical entry contains two stems accompanied by statements on their distribution. See (9), where sample derivations are also presented.

(9) (a) Lexical entry of Old Icelandic lítill:

/litl/ ⁹ before vowel, except in the strong gen. pl.,
gen. sg. f., dat. sg. f.

/lítill/ elsewhere

(b) Some partial derivations:

nom. sg. m. gen. sg. m./n. dat. pl. gen. pl. nom. sg. f.

lítill lítill+s litl+um lítill+a lítill

(1a) -- -- -- lítill:+a --

(1c) lítill: -- -- -- --

VSyncope -- -- -- --

lítill lítills litlum lítilla lítill

The corresponding Modern Icelandic lexical entry and sample derivations are stated in (10), q.v.

(10) (a) Lexical entry of Modern Icelandic lítill:

/lɪhtl/ before vowel, except in the strong gen. pl.,
gen. sg. f., dat. sg. f.

/litɪl/ elsewhere

(b) Some partial derivations

nom. sg. m. gen. sg. m./n. dat. pl. gen. pl. nom. sg. f.

litɪl litɪl+s lɪhtl+Ym litɪl+a litɪl

q-infix litɪdɪl -- -- litɪdɪl+a --

VSyncope -- -- -- --

lítill lítills litlum lítilla lítill

A comparison of the Old and Modern Icelandic lexical entries of lítill shows that the forms have only undergone changes dictated by the sound-laws. The complexity of the paradigm has essentially remained unchanged since Old Icelandic times.

4.2.2. Old Icelandic mikill "big, great". Its lexical entry is described in (11), q.v., where some sample derivations are given as well. The k was palatal /k_j/ even in Old Icelandic, as indicated in (11); see

Benediktsson 1959 fn. 23. The Modern Icelandic situation is described in (12), q.v. A comparison of the Old and Modern Icelandic lexical entries of mikill shows that its forms have undergone only changes dictated by the sound-laws. The complexity of the paradigm has not changed.

- (11) (a) Lexical entry of Old Icelandic mikill:

/mik_jil/ [+Vowel Syncope Rule]

- (b) Some partial derivations:

	nom. sg. m.	gen. sg. m./n.	dat. pl. gen. pl.	nom. sg. f.
	mik _j il	mik _j il+s	mik _j il+um	mik _j il+a mik _j il
(1a)mik _j il:	--	--	--	--
(1c) --	--	--	mik _j il:+a	--
VSyncope	--	--	mik _j l+um	--
	<u>mikill</u>	<u>mikils</u>	<u>miklum</u>	<u>mikilla</u> <u>mikil</u>

- (12) (a) Lexical entry of Modern Icelandic mikill:

/mIk_jil/ [+Vowel Syncope Rule]

- (b) Some partial derivations:

	nom. sg. m.	gen. sg. m./n.	dat. pl. gen. pl.	nom. sg. f.
	mIk _j il	mIk _j il+s	mIk _j il+Ym	mIk _j il+a mIk _j il
d-infix	mIk _j idl	--	--	mIk _j idl+a --
VSyncope	--	--	mIk _j l+Ym	--
	<u>mikill</u>	<u>mikils</u>	<u>miklum</u>	<u>mikilla</u> <u>mikil</u>

Occasionally there appear forms other than those favoured by the literary norm. E.g., in the Guébrandsbiblíá 1584 there is a nominative sg. m. mykel without d-infixation (Bandle 1956:108); this form is to be evaluated in the same way as pjón, mentioned in section 2 above, if it is not just an error. - A nom. sg. m. mikinn appears in a folk song written down for Árni Magnússon in 1703 (ms. AM 670 1 4to; Helgason 1963:108, XXVIII). Cf. Swedish nominative singular case forms annan, någon, old accusatives (Wessén 1958:97); there are similar forms in Danish and Norwegian. - Helgason 1962a:111fn., 1965:122 adduces dat. sg. f. miklri from two folk song manuscripts (ms. JS 405 4to, written 1819 as a copy of an older, now lost ms. from 1699-1700, see Helgason 1962a: XVIII, XXIV; D[ansk]F[olkemindel]S[amling]66, a copy, by Sven Grundtvig, of a lost manuscript, dated in 1814, by Jón Stefánsson faktor, see Helgason 1965:XXIVf.). The case form miklri has to be evaluated in the

same way as the type kristnra, dealt with above, in 4.1. The lack in miklri of the d-infixation of the normal variants mikilli, mikillri is due to a change of ending: -(r)i with concomitant d-infixation is (sporadically) replaced by -ri not accompanied by d-infixation; such -ri is found, e.g., in the dat. sg. f. gul-ri of gul- "yellow".

4.2.3. Old Icelandic annarr. Its Old and Modern Icelandic lexical entries are described in (13) and (14), respectively, where

(13) (a) Lexical entry of Old Icelandic annarr:

/aär/ before vowel

/an:ar/ elsewhere

(b) Some partial derivations:

	nom. sg. m.	gen. sg. m./n.	dat. pl.	gen. pl.	nom. sg. f.
an:a(r+r:	an:ar+s	aär+um	an:a(r+r:a	an:ar	
an:ar:			an:ar:a		
(1a)	--	--	--	--	--
(1c)	--	--	--	--	--
VSyncope	--	--	--	--	--
u-umlaut	--	--	öär-um	--	ön:ur
	<u>annarr</u>	<u>annars</u>	<u>öärum</u>	<u>annarra</u>	<u>önnur</u>

some sample derivations are also added. A comparison of (13) and (14) shows that the sundry forms have undergone the changes dictated by the

(14) (a) Lexical entry of Modern Icelandic annar:

/aär/ before vowel, except in the gen. pl.,

gen. sg. f., dat. sg. f. ¹⁰

/an:ar/ elsewhere

(b) Some partial derivations:

	nom. sg. m.	gen. sg. m./n.	dat. pl.	gen. pl.	nom. sg. f.
an:ar	an:ar+s	aär+Ym	an:ar+a	an:ar	
<u>d</u> -infix	--	--	--	--	--
VSyncope	--	--	--	--	--
u-umlaut	--	--	öär+Ym	--	ön:Yr
	<u>annar</u>	<u>annars</u>	<u>öärum</u>	<u>annar(r)a</u>	<u>önnur</u>

sound-laws. But there are other modifications as well. Since, say, gen. pl. annarra has had its rr simplified to short r during its development

into Modern Icelandic, the ending of the form is no longer /r:a/, but just /a/. Since the stem is not marked with [÷Vowel Syncope Rule], no vowel syncope takes place before this /a/. Occasionally the termination of the type /a/ is replaced by a less normal desinence /a^{+VS}/, which triggers vowel syncope even if the stem is not marked [÷Vowel Syncope Rule], so that there arises, say, gen. sg. f. annrar from /an:ar+ar^{+VS}/. For an example, see the manuscript on "Spánverjavigin" written 1792 (a copy of a seventeenth century manuscript); Kristjánsson 1950:IX, 5 (var. 1. annar(r)ar).

Haegstad (1942:41, 46) reports having heard the dat. sg. m. and dat. pl. öðrum, and dat. sg. n. öðru in Fljótsdalur, East Iceland, at the beginning of this century. Haegstad seems to assume that the origin of öðru(m) is somehow connected with that of the dat. sg. f. allari (also alləri), of all- "all", which he had heard in North Iceland, as well as in the Eastern fjord Fáskrúðsfjörður. All-ari can be explained in the light of dat. sg. f. þessari of þessi "this, that": the auslaut ari of þessari was understood as an ending and transferred to all-, which is a stem of a high frequency of usage, just as þessi. (Cf. Faeroese dat. sg. f. hvít-ari of hvít- "white", and kvitare in a Norwegian folk song; Indrebø 1951:119.) However, from allari there is still a long way to öðru(m). The -uru(m) of the latter might rather be due to the imitation of the auslaut of the appropriate cases of nokkur "some", another pronoun of high frequency. The literary norm now requires the contracted stem in the dative singular masculine/neuter and in the dative plural, nokkru(m), but non-contracted forms nokkuru(m) (and nokkurju(m)) are in popular use as well, cf. Jónsson 1908:103; Blöndal 1920-24 s.v. nokkur; Blöndal-Steman 1959:94; Bérkov-Böðvarsson 1962:990.

4.2.4. Old Icelandic minn "my, mine". Its Old and Modern Icelandic lexical entries are stated in (15) and (16), respectively, q.v., where a few Old Icelandic sample derivations are added as well; the respective Modern Icelandic derivations are mutatis mutandis like the Old Icelandic ones.

- (15) (a) Lexical entry of Old Icelandic
- minn
- :

/mit:/ in the nom./acc. sg. n.

/min:/ in nom./acc. sg. m., gen. sg. f., dat. sg. f.,
gen. pl.

/mín/ elsewhere

- (b) Some partial derivations:

nom. sg. m. gen. sg. m./n. dat. pl. gen. pl. nom. sg. f.

min: min+s min+um min:+a mín

(1a) -- -- -- --

(1c) -- -- -- --

minn míns mínun minna mín

- (16) Lexical entry of Modern Icelandic
- minn
- :

/míht/ in the nom./acc. sg. n.

/mín:/ in the nom./acc. sg. m., gen. sg. f., dat. sg. f.,
gen. pl.

/mín/ elsewhere

4.2.5. Old Icelandic hinn "that" and article. Its Old and Modern Icelandic lexical entries are stated in (17), q.v. A few sample derivations are given in (18), q.v. Notice that the lexical representation

- (17) (a) Lexical entry of Old Icelandic
- hinn
- :

"that" "the"

/hit:/ /hit/ in the nom./acc. sg. n.

/hin/ elsewhere

- (b) Lexical entry of Modern Icelandic
- hinn
- :

"that" "the"

/híht/ /híð/ in the nom./acc. sg. n.

/hín:/ in the nom. sg. m., gen. pl., gen. sg. f.,
dat. sg. f.

/hín/ elsewhere

of hinn increased in complexity on the way from Old to Modern Icelandic. This is due to the fact that the Consonant Lengthening Rule went out of use in the meantime, see section 1.5 above. It is unlikely that such a complicated morphological rule as Rule (1) would have remained in the language after it had ceased to affect more than one (hinn), or possibly two (hinn and affixed article) lexical items, especially since both of

- (18) (a) Some partial derivations of Old Icelandic
- hin
- :

	nom. sg. m.	gen. sg. m./n.	dat. pl. gen. pl.	nom. sg. f.
	<u>hin</u>	<u>hin+s</u>	<u>hin+um</u> <u>hin+a</u>	<u>hin</u>
(1a) --	--	--	<u>hin:+a</u>	--
(1c) <u>hin</u> :	--	--	--	--
	<u>hin</u>	<u>hins</u>	<u>hinum</u> <u>hinna</u>	<u>hin</u>

- (b) Some phonological representations of Modern Icelandic
- hin
- :

nom. sg. m.	/hIn:/;	gen. sg. m/n.	/hIn+s/;	dat. pl.	/hIn+Ym/;
gen. pl.	/hIn:+a/;	nom. sg. f.	/hIn/		

those items are of high frequency, and therefore natural candidates for suppletion. Nom./acc. sg. n. mitt, hitt/hit could be treated as minn, hin plus replacing ending; this alternative will not be explored here.

4.2.6. A special position is occupied by the Old Icelandic feminine nouns listed in (19), q.v. These nouns are exceptional (for instance, dís-

- (19) (a) gás- "goose", nom./acc. pl. gaess
lús- "louse" lýss
mús- "mouse" mýss
brún- "eye-brow" brynn
dur- "door", pl. tantum dyrr

- (b)
- dís
- "goddess, maiden", nom sg.
- dís(s)
- , see Noreen 1923:264

pertains to a very rare Old Icelandic type. / Their phonological idiosyncrasies are best accounted for on the lexical level. For examples of partial lexical entries of such nouns, see (20). An even more exceptional noun is nótt "night"; its tt ~ t is likewise best accounted for on the lexical level.

- (20) gás:- /g_j.aes:/ in the nom./acc. pl.
 /gás/ elsewhere (disregarding u-umlaut)
dur:- /dyr:/ in the nom./acc. pl.
 /dur/ elsewhere
dís:- /dís/; nom. sg. exceptionally also /dís:/, without ending

The plural forms listed in (19) had their long consonants shortened before the Reformation (in the case of brún- by the time of the Guðbrandsbiblíá 1584, although the process is still not well understood; Bandle 1956: 101, 261).

FOOTNOTES

¹ I thank Miss Margaret G. Davis for correcting my English.

² If the noun and the affixed article are not separated by a word boundary in Old Icelandic, as postulated here, the structural description of cases (c-d) in the Consonant Lengthening Rule (1) must be partially modified:]# has to be replaced by ([+Article])#.

³ In the present paper the lexical items which undergo the Vowel Syncope Rule are ad hoc marked with the rule feature [+Vowel Syncope Rule] whenever the context requires that attention be drawn to the fact that the lexical item in question undergoes the Vowel Syncope Rule in the appropriate inflexional forms.

Endings are occasionally ad hoc marked with the indices +VS or -VS, meaning: the ending in question assigns/removes the rule feature [+Vowel Syncope Rule].

⁴ I do not indicate vowel length in Modern Icelandic non-phonetic representations, because I have not yet formed an opinion on the extent to which vowel length should be indicated in representations as they are prior to the operation of the phonological vowel-quantity rules.

⁵ The sign used, in conformity with common practice, for the infixed sound, /d̥/, represents the non-aspirated voiceless dental stop.

- In using /h/, rather than /^h/, to indicate what has traditionally been referred to as PREASPIRATION, I follow Pétursson (1972), whose instrumental investigation has shown that preaspirated stops are really clusters of /h/ + stop.

⁶ The psychological reality of the vowel final stem produced through the deletion of the stem final consonant may be at the root of the explanation of the fact, if it is a fact, that no spread of the desinence -rr seems to have taken place from the 2.3p. sg. pres. ind. act., such as ferr of fara "go, travel", into the corresponding forms of verbs with monosyllabic

vowel final present stems: there is nae-r, of ná- "reach", but nae-rr has not been observed, to the best of my knowledge. The reason may be that the vowel final stems which arise in the process of adding -rr to the r final verbal stems (e.g. fer- + -rr → fe- + -rr → ferr) are not sufficiently wordlike: they invariably end in a "lax" vowel, which hardly ever appeared in word final position under primary stress. There were no examples of monosyllabic present stems containing a "tense" root vowel followed by stem final r; e.g. there was no present stem nár-, 2.3p. sg. pres. ind. naerr.

7 Incidentally, it is probable that the difference between, say, gen. sg. skilfls and skilpls is to be accounted for as follows in Icelandic descriptive grammar: skilpls is morphologically /sk_jI:p+s/, whereas skilfls is from /sk_jI:(p+fs)/, with replacing /fs/. That is, the morphological component assigns competing endings /s/ and /fs/ to the stem skip-.

8 There arises a problem in connection with the past participles containing /in/: farinn of fara "go, travel", valinn of velja "choose". Their nom./acc. sg. n. forms farit, valit can be accounted for in the same way as opit, e.g. /far+i(n+t)/, OR their past participle marker /in/ can be assumed to be replaced by a marker allomorph /it/. I am not able to choose between these alternatives.

9 Observe the change of the accented vowel: í ~ i. Forms with í in the contracted cases (lítl-) also existed in Old Icelandic (Noreen 1923:112). In the lexical entry associated with the paradigm lítill ~ lítl- the upper line of (9a) is absent, and the representation /lítill/ marked as undergoing the Vowel Syncope Rule.

Nom./acc. sg. n. lítit of lítill, mikit of mikill, annat of annarr (modern litið, mikið, annað) contain a replacing ending /t/, modern /a/. The morphological representations of the respective acc. sg. m. case forms lítinn, mikinn, annan are as follows. lítinn: Old Icelandic /lítI(l+n)/, Modern Icelandic /litI(l+n)/; mikinn: Old Icelandic /mík_jI(l+n)/, Modern /mIk_jI(l+n)/; annan: Old and Modern Icelandic /ana(r+n)/. The choice of the acc. sg. m. case desinence /n:/ or /n/ is not predictable and requires ad hoc markings in the respective lexical entries.

10 Since case forms such as gen. pl. annar(r)a must have a vowel initial ending in Modern Icelandic, it is necessary to explicitly eliminate the gen. pl., gen. sg. f., and dat. sg. f. from the distribution of the stem /aer/. Otherwise the grammar would generate the unacceptable gen. pl. særa, etc.

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POVZETEK

Staroislandsko pravilo o podaljševanju soglasnikov in novoislandska infiksacija /ð/

Staroislandsko oblikoslovje je vsebovalo pravilo o podaljševanju posamoglasniških l, n, s na koncu osnov v nekaterih oblikah pregibnih besed, npr. v imenovalniku ednine stóll osnove stól- "stol". Pravilo je navedeno sub (1) v § 1.1 in ponazorjeno s primeri v § 1.2, kjer so ome-

njene tudi izjeme. Nadrobnosti pravila (1) so osvetljene v §1.3. §1.4: pravilo (1) deluje pri izpeljavah oblik pred vsemi fonološkimi pravili. V §1.5 je opisano, kako je pravilo (1) postopno izginilo iz jezika.

§2: v novi islandščini, z začetki pred reformacijo, je nekatere službe pravila (1) postopno prevzel mehanizem za dodajanje končnic. Mehanizem se je razširil z infiksom /ǧ/, ki rabi sam ali hkrati s kakim obrazilom za označevanje raznih oblik. Tako vsebuje novoislandski imenovalnik ednine stóll [stoudl] infigirani /ǧ/, ki ga ni v nobeni drugi obliki samostalnika in ki nadaljuje oblikoslovno funkcijo staroislandskega dolgega ll, nastalega (z vidika opisne slovnice) po pravilu (1).

§3 zagovarja tezo, da dolžine r-a v staroislandskem dajalniku ednine ženskega spola stórri ne gre pripisati delovanju pravila (1) na končni r osnove stór- "velik", temveč je po sredi nadomeščanje končnega r osnove s sklonilom -rri. Implikacija je, da govoreči ne cepijo oblike stórri na stór- + -ri, čeprav poznajo končnico -ri od drugod (primerjaj dajalnik ednine ženskega spola gul-ri od gul- "rumen"), temveč jim je rr nedeljiv glas. Shematično: stór- + -rri → stó- + -rri → stórri. Kot vmesna stopnja nastaja pri tem osnova na samoglasnik, stó-, in končnica -rri se pravzaprav dodaja tej osnovi. Zaradi take distribucije začne -rri tekmovali z alomorfno končnico, ki se od prej dodaja pravim osnovam na samoglasnik (to je -ri), in vdira na njeno področje. Pri dajalniku ednine ženskega spola osnov na samoglasnik je to privedlo do izpodrinjenja podedovanega -ri: v začetku islandske pismenosti je pri ný- "nov" še zanesljivo izpričano ný-ri, nato zavlada ný-rri.

V §3.2 so navedeni trije argumenti v prid opisani tezi.

V §3.3 so našteje nekatere izmed tistih trditev o učenju materinega jezika in lastnostih slovnice, ki so implicirane v avtorjevi analizi oblik kot stórri. §3.4 kratko opisuje usodo nekaterih staroislandskih končnic, ki so se začenjale z rr. §3.5: §1 in tisti deli §§2-4, ki so odvisni od formulacije pravila (1), so preliminarni.

§4.1 obravnava slovarski zapis in izpeljave staro- in novoislandske oblikoslovno pravilne slovarske enote, v oblikah katere je v staro islandščini delovalo pravilo (1). Mimo glavnega primera opin- "odprt" so omenjene manj znane in redkejšje sklonske različice pridevnikov na -in-. V §4.2 je obravnavanih nekaj izjemnih slovarskih enot: lífill "majhen", mikill "velik", annarr "drugi", minn "moj", hinn "tisti" in določni člen, lús "uš", dís "devica, boginja" itd.