

MODERN ICELANDIC U-UMLAUT FROM THE DESCRIPTIVE POINT OF VIEW

Survey. Par.1: The present study investigates the so-called u-umlaut alternations /a~ö/ and /a~y/, and is arbitrarily limited to u-umlaut alternations within morphological paradigms.

Par. 2: It is necessary to distinguish between u-umlaut in monosyllabic and u-umlaut in polysyllabic stems. Monosyllabic stems display only the alternation /a~ö/, e.g. *barn*~*börn*. Polysyllabic stems manifest two types of u-umlaut, Final and Initial umlaut. A stem shows Final umlaut if the alternation /a~ö/ occurs in the last syllable of the stem only, e.g. *almanak*~*almanök*. This type of u-umlaut is normal and productive in polysyllabic stems. A stem manifests Initial umlaut if it undergoes the alternation /a~ö/ in its stressed syllable and-or the alternation /a~y/ in its unstressed syllable(s), e.g. *gamall*~*gömul*. There are astonishingly few reliable examples of Initial umlaut, and a few classes of ambiguous examples. Beside Final and Initial umlauts there is a special marginal type illustrated by *hafald*~*höföld*. A few lexical items, such as *hérað*, display more than one type of u-umlaut, e.g. *héruð*~*héröð*.

Par. 3 describes the phonological properties of the environments in which u-umlaut shows up. Stems which manifest u-umlaut are often followed by *u*-initial desinences, e.g. *göml-um*, but just as often such stems are not followed by anything, e.g. *gömul*, or by endings which do not begin with *u*, e.g. *börn-in*. Par. 4 enumerates the morphological environments in which u-umlaut takes place in nouns, adjectives and verbs. Par. 5 enumerates the inflexional classes of words in which the basic vowel of the u-umlaut alternation is more likely /ö/ than /a/. Par. 6 studies the u-umlaut alternation /au~öi/, which occurs before palatal or velar nasal (e.g. *langur*~*löngum*), and the behaviour of the diphthong /ai/ with respect to the u-umlaut.¹

¹ My thanks are due to Miss Margaret G. Davis, who has corrected my English,

1. The label U-UMLAUT belongs to historical grammar. However, in this descriptive study it will be used as a convenient name for the vowel alternations /a—ö/ and /a—y/ which are found in many morphological paradigms of Modern Icelandic, and which have mostly arisen through the prehistorical process of u-umlaut. An example is *gamall* 'old' versus nom. sg. f. and nom./acc. pl. n. *gömul*. From the descriptive point of view the limitation of the scope of the present paper to just these alternations, in morphological paradigms only, is arbitrary. What remains outside are other vocalic alternations and

(a) Inflected words displaying no u-umlaut alternations in their morphological paradigms. If such inflected words contain, for instance, non-alternating /ö/, as in (1a), q.v., that segment is here assumed to have been lexicalized.

(b) Uninflected words. In this context there is of course no point in keeping the /ö/'s and /y/'s which are due to pre-historical u-umlaut apart from the /ö/'s and /y/'s of other origin. Thus in (1b), q.v., the /ö/ of *mjög* is from older *o*, the latter from *a* by u-umlaut, according to the most probable conception of breaking before *u*, see Nielsen 1957: 38–42. *Sjö* is from older *sjau*.

(1) (a) Inflected words: *mör* 'suet'

Böðvar masculine given name

fölur 'pale'

(b) Uninflected words: *mjög* 'very'

sjö 'seven'

(c) Uninflected constituents of compound words:

böggla-afgreiðsla 'parcel post delivery'

dökk-grænn 'dark green'

fjöl- 'multi-, poly-'

sögu-staður 'historical place'

(d) Derivational paradigms:

fara 'go, travel' vs. *förull* 'rambling'

saga 'history' *sögulegur* 'historical'

and to Baldur Jónsson and Stefán Karlsson, who have read an earlier version of the paper and suggested improvements. All errors are my own.

<i>baggi</i> 'pack'	<i>böggull</i> 'parcel'
<i>kanna</i> 'explore'	<i>könnuður</i> 'explorer'

(c) Uninflected constituents of compound words. Admittedly a word like *sögustaður* of (1c), q.v., can be related to *saga* on the level of descriptive word formation, as it unquestionably is in historical word formation, but I doubt that the phonological representation of the compound begins with /saɣ/ or /saɣ + ɣ/, so that /ö/ were due to the synchronic u-umlaut rule.

(d) Derived lexical items displaying the alternation /a-ö/ and-or /a-ɣ/ in their derivational paradigms. For instance, *förull* of (1d), q.v., is related to *fara* in historical word formation, and may be so related in descriptive word formation as well. But I doubt that the phonological representation of its stem is /far + ɣl/ and its /ö/ due to the synchronic u-umlaut rule.

2. Kinds of u-umlaut. It is practical to treat umlaut in monosyllabic stems and in polysyllabic stems in separate paragraphs. In polysyllabic stems I distinguish between Final and Initial u-umlaut.

2.1. U-umlaut in monosyllabic stems. The only u-umlaut alternation found in monosyllabic stems is of course /a-ö/, never /a-ɣ/; see (2a). Those stems having a monosyllabic and a non-monosyllabic shape on the phonetic level, behave as true monosyllabic stems as far as their monosyllabic allomorphs are concerned; see (2b).

(2) (a) Stems which are always monosyllabic

barn 'child', nom./acc. pl. *börn*, dat. pl. *börn-um*

gata 'street', oblique sg. *göt-u*, nom./acc. pl. *göt-ur*, dat. pl. *göt-um*

hvass 'sharp', nom. sg. f. and nom./acc. pl. n. *hvöss*, dat. pl. *hvöss-um*, etc.

(b) Stems having mono- and polysyllabic allomorphs

farinn 'gone', several weak cases *förn-u*

akur 'field', dat. pl. *ökr-um*

hamar 'hammer', dat. pl. *hömr-um*

annar 'other, second', dat. sg. n. *öðru*, cf. nom. pl. m. *aðrir*

2.2. Final u-umlaut. Final umlaut is only possible in polysyllabic stems. A polysyllabic stem is here said to undergo Final umlaut if it displays the alternation /a—ö/ in the last syllable of the stem; the remaining syllables of the stem do not undergo any u-umlaut. For examples see (3).

Which polysyllabic stems undergo Final umlaut? Excepting stems undergoing Initial umlaut and some irregular formations (see par. 2.3 and 2.4 below), Modern Icelandic polysyllabic stems undergo Final umlaut generally—if their rightmost vowel is susceptible to the u-umlaut alternation: contrast *japönsk* of *japanskur* ‘Japanese’ and *falleg* of *fallegur* ‘beautiful’. Final u-umlaut seems to represent the normal and productive kind of u-umlaut in Modern Icelandic polysyllabic stems: naturalized polysyllabic stems susceptible to u-umlaut display Final umlaut.

- (3) Illustrations of Final umlaut, including naturalized stems
almanak ‘calendar’: nom./acc. pl. *almanök*, dat. pl. *almanök-um*
albanskur ‘Albanian’: *albönsk(-um)*
apaldur ‘apple-tree’: *apöldr-um*
akarn ‘acorn’: *akörn(-um)*
rambaldi ‘bell beam’: *ramböld-um*
bikar ‘drinking cup’: *bikör-um*
heilagur ‘holy’: *heilög(-um)*
folald ‘young foal’: *folöld(-um)*
spekúlant ‘speculator, gambler’: *spekúlönt-um*
gímald ‘vast opening’: *gímöld(-um)*
organ ‘organ’: *orgön(-um)*
karat ‘carat’: *karöt(-um)*
blýantur ‘pencil’: *blýönt-um*
kórall ‘coral’: *kóröll-um*
Albani ‘Albanian’: *Albön-um*
skandali ‘scandal’: *skandöl-um*
Skandínavi ‘Scandinavian’: *Skandínöv-um*
atlas ‘atlas’: *atlös-um*
kvaðrat ‘square’: *kvaðröt(-um)*
Amerikani ‘American’: *Amerikön-um*
dínarður ‘dinner’: *dínörð-um*
kartafla ‘potato’: *kartöfl-um*
bastarður ‘bastard’: *bastörð-um*

Arabi 'Arab' sb.: *Aröb-um*
dívan 'couch': *dívön-um*
fosfat 'phosphate': *fosföt(-um)*
salat 'salad': *salöi(-um)*
serenaða, serenata 'serenade': *serenöð-u, serenöt-u*
smaragður 'emerald': *smarögð-um*
spítali 'hospital': *spítöl-um*
standarður 'standard, flag': *standörð-um*
túlípani 'tulip': *túlípön-um*
klóak 'drain, sewer': *klóök(-um)*

2.3. Initial u-umlaut. A polysyllabic stem is here said to undergo Initial u-umlaut if it displays the alternation /a—ö/ in the syllable under primary stress, and-or the alternation /a—y/ in one or more remaining syllables. For examples see (4).

- (4) (a) /a—ö/ under primary stress, /a—y/ elsewhere
annar 'other, second', nom. sg. f. *önnur*
gamall 'old' *gömul*
- (b) Only /a—y/ in at least one unstressed syllable, no u-umlaut alternation in the stressed syllable
sumar 'summer', nom./acc. pl. *sumur*
hundrað 'hundred' *hundruð*
- (c) Only /a—ö/ in the stressed syllable, no u-umlaut alternation in the unstressed syllable(s)
fagur 'fair', nom. sg. f. *fögur*
mastur 'mast', nom./acc. pl. *möstur*²

Which stems undergo Initial umlaut? There are astonishingly few reasonably unambiguous examples of stems undergoing Initial umlaut, and no other type of umlaut. A hopefully exhaustive list of such cases is given sub (5), q.v. (For cases such as pl. *héruð*—*héröð* see par. 2.5.) All told, Initial umlaut seems to be limited to a few old and-or much used, often idiosyncratic, preponderantly native lexical items. (*Markaður* and *mastur* are pre-Reformation loanwords. The archaic *atall*, now usually *ötul*- in all its case forms, with lexicalized u-umlaut, cannot

² Here belongs also the substandard lp. pl. pres. *öthugum* and pret. pl. *öthuguð*- (normal forms *athugum, athuguð*-) of *athuga* 'examine'.

(5) A list of stems undergoing Initial umlaut

(a) Nouns

- markaður* 'market', dat. pl. *mörkuð-um*
faðir 'father', oblique sg. *föður*
mastur 'mast', nom./acc. pl. *möstur*
sumar 'summer', nom./acc. pl. *sumur*
hundrað 'hundred', nom./acc. pl. *hundrað*

(b) Adjectives

- gamall* 'old', nom. sg. f. *gömul*
annar 'other, second', nom. sg. f. *önnur*
atall 'energetic', nom. sg. f. *ötul*
einsamall 'alone', nom. sg. f. *einsömul*
allursaman 'all together', nom. sg. f. *öllsömun*
 the type *fagur* 'fair', nom. sg. f. *fögur*

(c) Verbs: no unambiguous examples

be characterized as much used or idiosyncratic.) *Faðir* belongs to an idiosyncratic inflexional type (cf. the plural stem *feð(ur)-*) and is also the only Modern Icelandic stem displaying u-umlaut before an *u* not immediately preceded by a morpheme boundary; cf. par. 3 below. *Sumar* has double definite nominative/accusative plural, *sumrin* and *sumurin*. *Gamall* has suppletive comparison, comparative *eldri*, superlative *elztur*. *Annar* has unique inflection, cf. its stems *annar-* (*önnur-*) and *aðr-* (*öðr-*). *Einsamall* and *allursaman* manifest unique allomorphic variation. For instance, their respective nominative singular feminine case forms are *ein-sömul* -*sömun* and *öll-sömul* -*sömun*. *Saman* occurs inflected only in the compounds *einsamall* and *allursaman*, and only in a few case forms at that: nom. sg. f. and nom./acc. pl. n. *ein- öll-sömun*, nom./acc. sg. n. *alltsaman(t)*, cf. Blöndal 1920–24 s.v. *allur* and p. 1008 s.v. *allur*; Böðvarsson 1963 s.v. *allursaman*. *Fagur* (with epenthetic *u* and stem final *r*) displays allomorphic variation in comparison (e.g. comparative *fegri*, *fegurri*, *fagrari*,³ superlative *fegurstur*, *fagrastur*) and sometimes even in the morphological paradigm (gen. sg. f. *fagurrar*, rarer *fagrar*, dat. sg. f. *fagurri*, rarer *fagri*, gen. pl. *fagurra*, rarer *fagra*).—The irregularity of *mastur*, *sumar*, *gamall*, -*samall*, and

³ The last mentioned form is not adduced in the handbooks, but the OHÍ has it registered.

the *fagur* type is enhanced by the circumstance that they display the alternation vowel— \emptyset in the unaccented syllable.

The less certain instances of Initial umlaut are nouns in *-naður*, *-uður*, *-ari*, *-un*, *-an*; adjectives in *-aður* and *-astur*; verbal forms such as pret. pl. *kölluð-* of *kalla* 'call'.

The nouns in *-naður* are all masculine and derived. Being preponderantly abstract in meaning, they occur mostly in the singular only. A list of those that are used in the plural as well, together with their dative plural, their only case displaying reflexes of u-umlaut, is given sub (6), q.v. If these lexical items are analyzed as containing an *-að-* final stem (e.g. *fatnað-*) followed by the case markers, their respective dative plural forms are instances of Initial umlaut. On the other hand, in all the nouns of the list, monosyllabic base stems can be easily recognized before the suffix *-naður*, cf. the lexical items in the rightmost column of (6). It is therefore possible that the true analysis is the stem *fat-* plus *-nað-*/*-nuð-* initial case markers. In that event the case marker of the

- (6) Examples of nouns in *-naður* which are also used in the plural
- | | | |
|-----------------------------|-----------------------------|---------------------------|
| <i>verknaður</i> 'work', | dat. pl. <i>verknuðum</i> , | cf. <i>verk(a)</i> 'work' |
| <i>skilnaður</i> 'divorce' | <i>skilnuðum</i> | <i>skilja</i> 'separate' |
| <i>-fatnaður</i> 'clothes' | <i>-fötnuðum</i> | <i>föt</i> pl. 'clothes' |
| <i>-klæðnaður</i> 'clothes' | <i>-klæðnuðum</i> | <i>klæði</i> 'clothes' |

dative plural can be *-nuðum*, with lexicalized *u* in the penultimate syllable, and the dative plural stem *föt-* is a case of umlaut in monosyllabic stems. A consequence of this analysis would be that the *fatnaður* type would constitute its own declension class characterized by its own set of case desinences. A third alternative analysis takes to account the fact that *-að-* is one of the commonest suffixes in Icelandic. It is possible that *fatnaður* is analyzed as *fatn-* plus *-að-*/*-uð-* initial case markers. The dative plural marker could then be *-uðum*, with lexicalized *u* in the penultimate syllable, and the dative plural stem *fötn-* a case of u-umlaut in monosyllabic stems. Again, the *fatnaður* type would constitute its own declension class. For the declension of *fatnaður* under this analysis, see (7). The same analysis could also be assumed for *markaður* 'market', adduced above in (5a), under the presupposition that its *-að-* was identified with the common suffix *-að-*, and-or its *mark-* with the stem *mark-* in *mörk* 'weight/value unit *mark*' or 'open space' (folk etymology). In

(7) nom. sg.	<i>fatn</i> + aðyr	pl. <i>fatn</i> + aðir
acc.	<i>fatn</i> + að	<i>fatn</i> + aði
dat.	<i>fatn</i> + aði	<i>fatn</i> + Yðym
gen.	<i>fatn</i> + aðar	<i>fatn</i> + aða

this case *markaður* ceases to be a case of Initial umlaut. I would here mention the possibility that the -að- of *hundrað* has also been identified with the common suffix -að-, in which case the nom./acc. pl. *hundruð* and the dat. pl. *hundruðum* need not contain /a/ changed to /y/ by the synchronic rule of u-umlaut, but the case desinences /+Yð/ and /+Yðym/, respectively, in which event the noun is removed from the sphere of Initial umlaut.—A set of further analyses is generated by the possibility that there is more than one morphological cut in every form, e.g. /*fat* + *nað* + *yr*/. As these analyses all operate with either Initial umlaut or with umlaut in monosyllabic stems, not with any third kind of u-umlaut, they are not treated in detail here. Last but not least, it is conceivable that not all speakers of Icelandic analyze the lexical items à la *fatnaður* in the same way, but some choose (unconsciously of course) one, and some another alternative analysis. In particular, it is possible that for some speakers *fötnuður* is a case of Initial umlaut, for others a case of umlaut in monosyllabic stems. The fact that there are so many descriptive alternatives is the reason why I characterize the *fatnaður* type, and the remaining types of words to be discussed presently, as unreliable instances of Initial umlaut.

The nouns in -uður. Most nouns in -uður are masculine, derived, and do not display synchronic u-umlaut in their inflexion at all. If they contain /ö/ in their root syllable beside *u* in -uð-, those /ö/ and /Y/ are lexicalized; examples: *frömuður* 'pioneer', *hugsuður* 'thinker', etc. On the other hand, a few nouns in -uður display Initial umlaut outside their genitives of both numbers, e.g. *söfnuður* 'congregation', gen. sg. *safnaðar*, pl. *safnaða*. (Halldórsson 1950:99 adduces gen. pl. *safnaða*

- (8) Examples of nouns in -uður, gen. -aða(r)
- | | |
|---------------------------------|----------------------------|
| <i>söfnuður</i> 'congregation', | cf. <i>safna</i> 'collect' |
| <i>fögnuður</i> 'joy' | <i>fagna</i> 'rejoice' |
| <i>jöfnuður</i> 'equity' | <i>jafna</i> 'make even' |
| <i>söknuður</i> 'sorrow' | <i>sakna</i> 'miss' |
| <i>mánuður</i> 'month' | — |

and *söfnuða*.) For a list of non-archaic stems in *-uður* showing u-umlaut see (8). If the only or main morphological cut in these nouns is after *uð*, the forms manifest Initial umlaut. On the other hand, the stems of these examples, excepting *mánuður*, are readily identified with the respective stems of the lexical items in the rightmost column of (8). Therefore the nouns sub (8) are perhaps analyzed by at least some Icelanders as stem *+uð/-að*-initial desinences. In that case it can be said that in the genitive plural the ending */+aða/* alternates with */+yða/*, the latter accompanied by u-umlaut, *söfnuða*.

There is a further set of non-phonetic representations utilizing */ö/* as the basic root vowel, */y/* as the basic vowel of *uð*, and changing them to */a/* in the genitives; this is also Initial umlaut (in the direction */ö, y/ → /a/*) according to my definition of u-umlaut. Alternatively, the root could be */söfn/*, changed to */safn/* in the genitives, whereas */+aða(r)/* would be lexicalized desinences; this would be umlaut (again in the direction */ö/ → /a/*) in monosyllabic stems. That the basic shape of the root is */söfn/*, rather than */safn/*, is made probable by the following: All case forms but the genitives contain */ö/* on the systematic phonetic level; the maximally unmarked case, nominative (of both numbers), contains */ö/*. An example of such an analysis will be found sub (9), q.v.

(9) nom. sg.	<i>söfn + yðyr</i>	pl.	<i>söfn + yðir</i>
acc.	<i>söfn + yð</i>		<i>söfn + yði</i>
dat.	<i>söfn + yði</i>		<i>söfn + yðym</i>
gen.	<i>söfn + aðar → safn + aðar</i>		<i>söfn + aða → safn + aða</i>

Under all the analyses operating with non-umlauting (lexicalized) desinence-initial */að/* and */yð/*, for instance under the analysis of (9), the nouns like those in (8) form their own declension class. Their stems are monosyllabic, and thus fall outside the scope of Initial umlaut.

The *-uður* of the non-derived noun *mánuður* has probably been identified with the *-uður* of the *-uður* nouns, so that whatever analysis is correct for, say, *söfnuður*, is correct also for *mánuður*. The identification in question may have been facilitated by folk-etymologizing the noun as containing the stem *mán-* of *máni* 'moon'.

The masculine nouns in *-ari*. They form an open set and mostly denote performers of action or occupation. For examples see (10).

(10) Examples of nouns in *-ari*

<i>bakari</i> 'baker',	dat. pl. <i>bökurum</i> ,	cf. <i>baka</i> 'bake'
<i>fiðlari</i> 'fiddler'	<i>fiðlurum</i>	<i>fiðla</i> 'violin'
<i>kennari</i> 'teacher'	<i>kennurum</i>	<i>kenna</i> 'teach'
<i>dómari</i> 'judge'	<i>dómurum</i>	<i>dómur</i> 'judgement'
<i>kjallari</i> 'cellar'	<i>kjöllurum</i>	—

The u-umlaut alternation shows up in the dative plural, see the central column of (10), and represents Initial umlaut if the main morphological cut is just before *-um*; the dative plural is then morphologically /*bakar* + *ym*/. However, since so many Icelandic nouns end in *-ari*, and-or because of their synchronic word-derivational ties with their respective bases such as those in the rightmost column of (10), it is possible that at least some Icelanders analyze *bakari* etc. as /*bak* + *ari*/ etc., making the stem monosyllabic and thus not subject to Initial umlaut. For an example of this analysis see (11). Under this analysis the nouns in *-ari*

(11) nom. sg.	<i>bak</i> + <i>ari</i>	pl. <i>bak</i> + <i>arar</i>
acc.	<i>bak</i> + <i>ara</i>	<i>bak</i> + <i>ara</i>
dat.	<i>bak</i> + <i>ara</i>	<i>bak</i> + <i>YRYM</i>
gen.	<i>bak</i> + <i>ara</i>	<i>bak</i> + <i>ara</i>

form their own declension class, different from the declension of other masculine weak nouns.

Speaking against Initial umlaut in the morphological paradigm of the *ari*-nouns are lexical items such as *kristall-ari* 'crystallizer', whose dative plural is *kristöllurum*, not *kristullurum*, which makes sense if the main morphological cut is after *ll*, /*kristall* + *YRYM*/; in that event it can be argued that *kristöllurum* displays the expected Final umlaut. However, this argument is weak, because examples such as *kristöllurum* are few in number and the type of their umlaut could be due to the influence of their word-derivational bases, cf. the verb *kristalla* 'crystallize', whose third person plural preterite is *kristölluðu*. Or it could be argued that *kristöllurum* is simply an exceptional form.

The non-derived *kjallari* 'cellar' (and *meistari* 'master', *marmari* 'marble', *keisari* 'emperor', etc.) has joined the derived nouns in *-ari* just as *mánuður* has joined those in *-uður*.

The deverbative feminine nouns in *-un*, mostly *nomina actionis*, form

an open set as well. For examples see (12). Their association with the lexical items in the rightmost column of (12) is strong. Initial umlaut is realized in the whole singular and in the dative plural: *pöntun*, gen. sg. *pöntun-ar*, dat. pl. *pöntun-um*. Many of these nouns, being abstract, are

(12) Examples of those feminine nouns in *-un* used both in the singular and plural

<i>pöntun</i> 'commercial order',	<i>panta</i> 'order' vb.
<i>kvörtun</i> 'complaint'	<i>kvarta</i> 'complain'
<i>fölsun</i> 'forgery'	<i>falsa</i> 'forge'
<i>töpun</i> 'loss'	<i>tapa</i> 'lose'
<i>verzlun</i> 'store'	<i>verzla</i> 'do business'
<i>einkunn</i> 'school mark' ⁴	—

used in the singular only, in which case they do not display any u-umlaut alternation, but exhibit lexicalized /ö/ and-or /y/.

However, it is doubtful whether the nouns sub (12) are genuine instances of Initial umlaut. They can be analyzed so that *-un-* and *-an-* pertain to the endings, see (13). There is even a weak argument in

(13) nom. sg.	<i>pant</i> + yn	pl.	<i>pant</i> + anir
acc.	<i>pant</i> + yn		<i>pant</i> + anir
dat.	<i>pant</i> + yn		<i>pant</i> + ynym
gen.	<i>pant</i> + ynar		<i>pant</i> + ana

favour of the cut being before *un/an*: The noun in *-un* made from the verb *kristalla* 'crystallize' is *kristöllun*, not *kristullun*. This speaks against the *pöntun* nouns undergoing Initial umlaut, and for their undergoing Final umlaut and for the main morphological cut being before *-un*. However, the argument is nonconclusive, in that it could be argued that nouns like *kristöllun* are simply exceptional, or due to analogy with their respective word-derivational bases. (The base verb *kristalla* has *kristölluðu* as its third person plural preterite.) If the ana-

⁴ The feminine noun *einkunn*, originally a compound, is now pronounced as a simplex (velar *n* before *k*, short *n* at the end), and has developed a new plural *einkanir* beside *einkunnir* (Böðvarsson 1963 s.v. *einkanir*). The pl. *einkanir* means 'school marks'. Its origin is due to proportional analogy: *seinkun* 'delay': *seinkanir* = *einkunn*: X, where X = *einkanir*. The paradigm *einkunn*, *einkanir* belongs with *pöntun*, *pantanir*.

lysis exemplified under (13) is correct, the *pöntun* nouns form their own declensional class.

A further alternative analysis of *pöntun* takes into account the possibility that /*ö*/, not /*a*/, is the basic root vowel in the morphological paradigm of the *pöntun* nouns, at least in the singular. In the plural, a morphological rule would change /*ö*/ to /*a*/, and another rule would change /*a*/ back to /*ö*/ in the dative plural; e.g. nom. sg./*pönt* + *YN*/, nom. pl. /*pant* + *anır*/, dat. pl. /*pant* + *YNYM*/ → /*pönt* + *YNYM*/. There is a complication here, in that those *pöntun* nouns derived from verbal stems whose vowel is /*ö*/, do not change that /*ö*/ into /*a*/ in the plural. Example: *af-höfðun* 'decapitation', nom. pl. *af-höfðanir*, not *-hafðanir*. Since nouns like *-höfðun* are rare, it could be postulated that they are exceptions from the plural /*ö*/ → /*a*/ rule. Alternatively, there may exist a language universal saying that derivatives must not display more variation in their morphological paradigms than their respective word-derivational bases. Thus, since *-höfðun* is derived from *afhöfða* 'decapitate' (and the latter from *af* + *höfuð* 'head'), in whose morphological paradigm /*ö*/ does not alternate with anything else, even *-höfðun* cannot display /*ö*/ → /*a*/. A third solution is outlined in par. 5.

Beside the feminine deverbative nouns in *-un* there are quite a few nouns in *-an*, also mostly nomina actionis. (In older times the nouns in *-an* were an open set. Most have now become *un*-nouns.) For examples (some repeated here from Kress 1963:85) see (14). These lexical items are unusual in that they do not display any u-umlaut in the singular,

(14) Examples of feminine nouns in *-an*

<i>ólyfjan</i> 'poison, stench',	cf. <i>lyf</i> 'medicine'
<i>angan</i> 'fragrance'	<i>anga</i> 'shed fragrance'
<i>líðan</i> 'state of health'	<i>líða</i> 'pass, feel'

although they contain strong feminine stems, whereas in the plural, in the rare cases when that number is used at all, *-unum* appears in the dative case, e.g. *ólyfjunum*, with Initial umlaut. If the stem is taken to end in *an*, these nouns must be made exceptions to the requirement that u-umlaut apply at least in the non-genitive singular of strong feminine nouns. (Cf. par. 4.) On the other hand, there is no problem with the u-umlaut here if it is assumed, as it is in par. 5 below, that there is no /*a*/ → /*ö*, *Y*/ rule in the singular of the strong feminine nouns,

whereas there is a comparable rule in the dative plural. A further possibility is that *an* is assigned to the desinences (either because of the strong association with the lexical items in the right column of (14), or because *-an-* is a relatively common suffix), and these words consequently form their own declension class, in which case there is no problem as far as the type of u-umlaut is concerned, for then the stems in question are monosyllabic.

Of the derived adjectives, including past participles, those in *-aður* may undergo Initial umlaut. For examples see (15). Initial umlaut is manifested, for instance, in the strong dative plural: *kölluðum*, *öldruð-um*, etc. However, since in most such adjectives the stems of the lexical items in the right column of (15) are readily identified with the stems

(15) Examples of adjectives in *-aður*

<i>kallaður</i> 'called',	cf. <i>kalla</i> 'call'
<i>aldraður</i> 'elderly'	<i>aldur</i> 'age'
<i>gáfaður</i> 'gifted'	<i>gáfa</i> 'gift'
<i>efnaður</i> 'well-to-do'	<i>efni</i> pl. 'means, wealth'
<i>hugaður</i> 'courageous'	<i>hugur</i> 'courage'

preceding *-aður*, and since *-að-* is a common suffix in the language, it is possible that at least some speakers analyze these adjectives as containing monosyllabic stems followed by *að-*initial desinences. For an example of such an analysis cf. (16). Under this analysis the adjectives in *-aður* do not display Initial umlaut and they form their own declensional class.

(16) nom. sg. m. <i>aldr</i> + aðyr	nom. sg. f. <i>aldr</i> + yð
dat. pl. <i>aldr</i> + yðym	gen. pl. <i>aldr</i> + aðra, etc.

A weak argument in favour of the division *aldr-aður* rather than *aldrað-ur* comes from past participles such as *parrakaður* 'kept pent in', where the u-umlauted forms contain the stem *parrök-*, e.g. nom. sg. f. *parrökuð*. If the adjectives in *-aður* contained Initial umlaut, we would expect nom. sg. f. *pörrukuð*, a non-existent form. The cut before *-aður* obliterates this difficulty: if the preceding stem is non-monosyllabic, the stem undergoes the expected Final umlaut. However, the argument is non-conclusive, for it could be argued that the adjectives like *parrak-*

aður are so few that they can be considered exceptions which do not influence the general pattern.

The situation is similar with the adjectival superlatives and ordinal numbers in *-astur*, e.g. *latastur* of *latur* 'lazy', strong dat. pl. *lötustum*; *tuttugasti* 'twentieth', pl. *tuttugustu*. At least on the face of it *lötustum* displays Initial umlaut. In reality the stem can be monosyllabic, *lat-* ~ *löt-*, and the case marker / +ystym/, not / +astym/. A weak argument in favour of analyzing *latastur* as *lat-astur* comes from superlatives such as *heilagastur* 'most holy', strong dat. pl. *heilögustum*, never *heilugustum*. The argument runs parallel to the one stated above about *parrak-aður*, and is inconclusive for the same reasons as those given there.— The superlative *dasaðastur* 'most exhausted', dat. pl. *dösuðustum*, can contain an even longer ending in the dative plural, viz. *-uðustum*.

It might be argued that verbal forms such as the 3p. pl. pret. *kölluðu* of *kalla* 'call' (versus the 3p. sg. pret. *kallaði*) display Initial umlaut. However, it is not proved that the medial /y/ is synchronically derived from /a/. It can just as well be that speakers analyze *kölluðu* as /kall + yðy/, in which case there is no sense in speaking of Initial umlaut in connection with such forms. If there is only one cut in *kölluðu*, as I assume, there is a special set of preteritival endings typically used with the *kalla* verbs: sg. *-aði*, *-aðir*, *-aði*, pl. *-uðum*, *-uðuð*, *-uðu*, and correspondingly in the middle voice, sg. *-aðist*, pl. *-uðumst* or *-uðustum*, *-uðuzt*, *-uðust*. Again, a weak argument for the cut before *-að-*, *-uð-* comes from verbal forms such as 3p. pl. pret. *parrökuðu* of *parraka* 'keep pent in'. If the cut is immediately after *k*, the bisyllabic stem *parrak-* can be said to have undergone the expected Final umlaut in *parrökuðu*. However, such examples are few in number, and it could be argued that they are exceptions whose idiosyncratic behaviour is due to their respective word-derivational bases, cf. pret. *kristölluðu* of *krist-alla* 'crystallize', and this from *kristallur* 'crystal', dat. pl. *kristöllum*.

2.4. Other types of u-umlaut. In addition to Final and Initial u-umlaut Modern Icelandic displays a third pattern, exemplified sub (17), q.v. All examples of this type known to me are bisyllabic NOUN stems. Alternative forms with Final umlaut exist as well, and are listed in (17). This and the paucity of examples testify to the marginality of this type of u-umlaut in Modern Icelandic. However, the type has a long history

in the language, beginning with the dative plural of the present participle *voçondom* (normalized *voçondom*) of *vaka* 'be awake' in the

- (17) *hafald* 'heddle of loom', pl. *höföld(um)*, also *haföld(um)*
kjarald 'cask' *kjöröld(um)* *kjaröld(um)*
kafald 'thick fall of snow' *köföld(um)* *kaföld(um)*

oldest extant Icelandic manuscript, AM 237a fol. (Benediktsson 1963a: 18); no doubt the development of the type is closely linked with the history of Final umlaut. The type deserves to be treated separately from the historical point of view. In Modern Icelandic the plurals *höföld* etc. most likely cannot be deduced from any rules of the grammar, but have to be memorized by the speakers of the language.

Another special type consists of the umlauted forms such as those adduced in (18), q.v. The example *fagur* represents a type; other in-

- (18) *fagur* 'fair': nom. sg. f. and nom./acc. pl. n. *fögur*, dat. pl. *fögrum*
mastur n. 'mast': nom./acc. pl. *möstur*, definite form *möstrin*, dat. pl. *möstrum*
sjáaldur n. 'pupil of the eye': nom./acc. pl. *sjáöldur*, definite form *sjáöldrin*, dat. pl. *sjáöldrum*
fjöður f. 'feather', gen. sg. *fjaðrar*: dat. pl. *fjöðrum*
klömbur f. (archaic) 'smith's vice', gen. sg. *klambrar*, dat. pl. *klömbrum*
gröftur m. 'digging, burial', gen. sg. *graftrar*: dat. pl. *gröftrum*; alternatively without radical *r*

stances of the type are, *magur* 'meagre', *napur* 'cold, chilly', *dapur* 'sad', *vakur* 'ambling (of a horse)', *árvakur* 'early awake'. The stems of the nouns and adjectives of (18) all undergo vowel syncope from the synchronic viewpoint: In the non-contracted cases their stems end in *Cur*, in the contracted cases in *Cr*, e.g. non-contracted *fagur-*, contracted *fagr-*. If the u-umlaut only operated in the contracted cases, these stems would be normal: *mastur*, *fjöður*, *gröftur* (the variant with radical *r*), the archaic *klömbur*, and the *fagur* type would be instances of monosyllabic stems undergoing u-umlaut, whereas *sjáaldur*, not being monosyllabic, would be undergoing the expected Final umlaut. What is unusual about the stems of (18) is their non-contracted forms, which undergo u-umlaut as if they were contracted, i.e. as if the *u* of *ur* were

ignored by the u-umlaut. Moreover, these stems are the only ones in which a *u* that has not resulted from the u-umlaut of *a* intervenes between the umlauted vowel and the end of the stem, cf. par. 3 below. How these stems are to be treated in the descriptive grammar of Icelandic as far as u-umlaut is concerned, depends for one thing on the way that vowel syncope is treated. To mention one possibility, suppose the native learners of Icelandic analyze the stems not as losing a vowel through a rule, but as containing a special set of endings, say, /faq + yr/, /faq + ran/, etc. In that case there would be no problem as far as u-umlaut is concerned, for the *u* of the non-contracted forms would be moved into the desinence, and thus any trace of u-umlaut operating upon vowels separated from the end of the stem by the string /C₀Y C₀/, where the /Y/ does not itself result from u-umlauting, would be gone. (That a part of a stem becomes a part of an ending, is not unusual. Cf. Middle English *cheris(e)* analyzed as *cheri + s*, whence a new singular *cherry*. The ultimate reason for the retraction of the morphological cut in the *fagur* type would be the learner's inability to determine where the border is between SAME and DIFFERENT in the paradigm of *fagur*.) However, the correct treatment of vowel syncope is still unknown.

2.5. A number of polysyllabic stems display sometimes Final, sometimes Initial u-umlaut, more rarely also umlaut of the *höföld* type. All such exceptional cases are listed in (19), q.v.

(19) List of stems displaying several kinds of u-umlaut

hérað 'district': nom./acc. pl. *héruð* (Initial umlaut) and *héröð* (Final umlaut). My impression is that *héruð* is more common than *héröð*.⁵

meðal 'medicine, drug': nom./acc. pl. *meðul* (Initial umlaut) and *meðöl* (Final umlaut). My impression is that both are equally used.

líkan 'picture, model': nom./acc. pl. *líkön* (Final umlaut) and *líkun* (Initial umlaut). My impression is that *líkön* is the normal form, whereas *líkun* is rare and found in the written language only.

⁵ My impressions here and below are based on the data in the OHÍ and on my work with informants.

forað 'dangerous place': nom./acc. pl. *foröð* (Final umlaut) and *foruð* (Initial umlaut). My impression is that *foröð* is the normal form, and *foruð* rare.

kastali 'citadel': dat. pl. *köstulum* (Initial umlaut), *kastölum* (Final umlaut), and *köstölum* (*höföld* type). My impression is that both *köstulum* and *kastölum* are equally used, whereas *köstölum* is rare. In the compound word *loftkastali* 'castle in Spain' Initial umlaut prevails: *-köstulum*.

óðal 'allodium': nom./acc. pl. *óðul* (Initial umlaut) and *óðöl* (Final umlaut). My impression is that *óðul* is more common than *óðöl*.

banani 'banana': dat. pl. *banönum* (Final umlaut), *bönunum* (Initial umlaut), *bönönum* (*höföld* type), possibly also *banunum*. My impression is that *banönum* and *bönunum* are equally used, *bönönum* very rarely. The form *banunum* is reported in Anderson 1969; my informants do not use it.

altari 'altar'. Here there is vacillation between the nominative/accusative plural forms *ölturu* (Initial umlaut), *öltöru* (*höföld* type), and *altari* (no umlaut). My impression is that *ölturu* is the normal form, whereas the remaining ones are rare.

vesall 'wretched': nom. sg. f. *vesöl* (Final umlaut) and *vesul* (Initial umlaut; Guðmundsson 1922:94). My impression is that *vesöl* is the normal form, whereas *vesul* is very rare.

3. The phonological environment of u-umlaut. This section describes the phonological properties of the environments in which u-umlaut shows up. It remains an open question whether the generalizations adduced in the present section are linguistically significant, for I am not aware of any arguments in favour of their significance. For a version of the Modern Icelandic u-umlaut rule in which these generalizations are expressed, and thus treated as linguistically significant, see Orešnik 1975.

Whether the reflex of Initial umlaut is /*ö*/ or /*ʏ*/ depends on stress. In stressed syllables /*a*/ alternates with /*ö*/, elsewhere with /*ʏ*/. Example: nom. sg. f. *gömul* of *gamall* 'old'.

In a simplex word that contains more than one u-umlauted vowel the instances of these can only be separated by consonants, i.e. such vowels

invariably stand in successive syllables; e.g. *önnur, gömul* of *annar, gamall*. A simplex word such as *apótekari* 'pharmaceutical chemist' has dat. pl. *apótekurum*, never *öpótekurum*, because of the *ó* and *e* intervening between the stressed and unstressed *a*'s of *apótekari*.

In simplex words comprising more than two syllables "a secondary stress falls on the odd syllables, the third, the fifth, etc., e.g. '*kenna,ri* 'teacher', '*kenna,rarnir* 'the teachers', '*prófes,sorar,nir* 'the professors'" (Benediktsson 1963b:146). (Such stresses are here called RHYTHMICAL; the term SECONDARY stress is here reserved for the main stresses of non-initial constituents of compound words.) There is no correlation between such rhythmical stresses and the alternants /*ö, y*/ of u-umlaut, cf. dat. pl. '*héröð,um* versus '*héruð,um* of *hérað* 'district'; dat. pl. '*karöt,um* of *karat* 'carat' versus '*alman,ökum* of *almanak* 'calendar'. Also, *þjóð-félögin* 'the societies' contains *ö* no matter how the rhythmical and secondary stresses are distributed. (There are several possible patterns of stress, see Benediktsson *ibidem*.)

If the first constituent of a bipartite compound word is monosyllabic, as it often is, the second constituent often loses its constituent initial secondary accent, and the compound as a whole thus assumes the phonetic shape of a simplex word; Benediktsson 1963b:146, Kress 1963:11. An example is *samband* 'connection', without any stress on *-band*. The loss of the secondary stress under these conditions does not lead to the violation of the principle that only the inflected (normally last) constituent in any compound word undergoes synchronic u-umlaut: dat. pl. *samböndum*. On the other hand, such compound words, appearing at least optionally in the disguise of simplexes, may have been a diachronic source of Final umlaut, or at least one of its supports: *samböndum* has the rhythmic pattern of, say, *albönskum*. In fact, it is sometimes difficult, or even impossible, to decide whether a compound of the *samband* type, pronounced with one primary stress accompanied by rhythmical stresses if appropriate, is a compound or a simplex from the synchronic point of view.

Nothing HAS to intervene between a u-umlauted vowel and the end of the stem (not word!) in which it appears; cf. the 3p. pl. pret. *spjöðu* of the archaic verb *spja* 'scorn, despise'.⁶ What CAN intervene in the

⁶ For the data on *spja* see Þórólfsson 1925:116.

said position on the systematic phonetic level, is /C₀/, or /C₀Yr/, or /C₀öC₀/. Actually in non-monosyllabic stems the u-umlauted vowel is always separated from the end of the stem by at least one consonantal segment. For examples see (20). If a vowel other than /Y/ or /ö/ which

(20) What can intervene between a u-umlauted vowel and the end of the stem, on the systematic phonetic level?

(a) One or more consonants: *hundruð*, *folöld*, *bök*, *börn*, *möstr-in*

(b) One or more syllables containing /Yr/, or /Y/ from /a/, or /ö/ from /a/: *fögur*, *möstur*, *önnur*, *gömul*, *höföld*

fulfils the conditions stated in (20b) intervenes in the said position, u-umlaut does not take place before that vowel. Cf. the lexical items listed in (21). It is, however, doubtful whether it can be asserted that the intervening vowel has prevented the u-umlaut from taking place in such cases, for the reason for the lack of u-umlaut is most probably the circumstance that the lexical items in question would undergo Final umlaut only.

There is reason to mention those adjectives undergoing vowel syncope of a vowel other than /a/ in some of their case forms. E.g. the past participle *farinn* 'gone' undergoes u-umlaut, cf. dat. pl. *förn-um*;

(21) Forms lacking u-umlaut either because they are only susceptible to Final umlaut, or because the intervening vowel is neither /Y/ or /ö/ fulfilling the conditions stated in (20b)

<i>praktugur</i> 'magnificent', dat. pl. <i>praktug-um</i>	
<i>fallegur</i> 'beautiful'	<i>falleg-um</i>
<i>kaktus</i> 'cactus'	<i>kaktus-um</i>
<i>albatros</i> 'albatross'	<i>albatros-um</i>
<i>aldin</i> 'fruit'	<i>aldin-um</i>

however, its nom. sg. f., in which case form u-umlaut is expected on the basis of such examples as *gamall* 'old' ~ *gömul* ~ *gömlum*, is *farin*, not *förin*. On the other hand, *faður* 'fair' follows the pattern of *gamall*: *faður* ~ *föður* ~ *föðrum*. The relevant difference between *farinn* and *faður* is that in the former the vowel to be umlauted is followed by *i* in the non-syncope forms, in the latter by *ur*. However, not even in this case can the lack of u-umlaut in *farin* be blamed on its *i* with certainty, for the description can also be formulated in an alternative way: *faður*

pertains to the same declension as *gamall* as far as the u-umlauting of its vowels is concerned, whereas *farinn* does not.

The stem-internal /Y/ does not trigger u-umlaut in a preceding /a/ of the same stem; cf. nom. sg. m. *fagur* (versus nom. sg. f. *fögur*), nom. sg. *akur* (dat. pl. *ökrum*), nom. sg. *mastur* (nom. pl. *möstur*). An exception is the oblique singular *föður* of *faðir* 'father'.

What phonological material can intervene between the end of the stem containing a u-umlauted vowel and the end of the word containing that stem? Nothing need intervene, see (22a). If anything does intervene, the most usual segment string immediately after the morpheme

- (22) a. *börn, önnur, sumur, folöld, japönsk*
 b. *börn-um, öðr-u, folöld-um, kandidateit-um, japönsk-um, sög-u, köll-um, stór-ðu*; but cf. *pöntunar*
 c. *dal-ur, albansk-ur* (**döl-ur*, etc.)

boundary begins with /YC₀/, see (22b). In fact, if a lexical item contains a vowel which is susceptible to u-umlaut, that vowel invariably assumes the umlauted shape (/ö, y/) before an ending beginning with /Y/, with the following exception: the desinence initial /Y/ of the nominative singular ending *-ur* is only accompanied by u-umlaut in the preceding stem if the u-umlaut can be ascribed to some other cause than the presence of *-ur*. For instance, there is u-umlaut in the nominative singular of the monosyllabic u-stem nouns: *skjöld-ur* 'shield', cf. gen. sg. *skjald-ar*; that this /a—ö/ has nothing to do with the *-ur* follows from the fact that those u-stem nouns which do not end in *-ur* in the nominative singular nevertheless undergo u-umlaut in that case form, e.g. *björn* 'bear', cf. gen. sg. *bjarn-ar*. For examples of lexical items that do not undergo u-umlaut before the nominative singular *-ur*, see (22c). (The fact that u-umlaut is not triggered before *-ur* is not the property of ANY ending *-ur*, only of the nominative singular case ending. The *-ur* of the nominative/accusative plural of weak feminine nouns behaves otherwise: nom./acc. pl. *sög-ur*, with u-umlaut, of *saga* 'saga'.)

The ending of the imperative singular with appended personal pronoun contains /Y/, e.g. imp. *far-ðu* of *fara* 'go, travel', *skammastu þín* of *skammast sín* 'be ashamed of oneself', yet the /Y/ of this ending does not trigger u-umlaut in the preceding stem, although the verbal stems in

question otherwise are susceptible to u-umlaut; cf. 1p. pl. pres. *för-um*, *skömm-umst* — *skömm-ustum*.

If an ending does not begin with /Y/, the u-umlaut generally does not take place in the stem. Exceptions:

(a) The ending of the definite dative plural of nouns can begin with *o* or *u*; there is *-onum* and *-unum* (under the influence of *flámæli* also *-önum*. Cf. Hægstad 1942:11 quoting Rask; Bandle 1956:65–66), e.g. *börn-onum* and *börn-unum*. The ending *-onum*—*-unum* behaves in the same way as the dative plural ending *-um* as far as u-umlaut is concerned.

(b) In general, the case forms of any Icelandic noun display two shapes, one with the postpositive article appended, and another without it. E.g. nom./acc. sg. *barn* and *barn-ið*. As far as the u-umlaut is concerned, the longer forms repeat the state of affairs that is found in the short forms: since there is no umlaut in *barn*, there is none in *barn-ið* either; and since the nom./acc. pl. *börn* displays u-umlaut, the corresponding definite form has it as well, *börn-in*. The fact that the *-in* of the definite form *börn-in* begins with /I/, i.e. with a vowel other than /Y/, has no influence upon the distribution of u-umlaut in the noun form with postpositive article appended to it.

In compound words only those constituents undergo u-umlaut which are morphologically inflected. Usually only the rightmost constituent, if any, is so inflected, and therefore is umlauted under the same conditions and in the same way as if it were an independent word; e.g. *aðal-dalur* 'chief valley', dat. pl. *aðal-dölum*, not *öðul-dölum* or the like. (The hyphen indicates the boundary between the constituents of the compound.) A list, probably exhaustive, of compound words in which a non-final constituent is both inflected and undergoes u-umlaut is given in (23), q.v. (These compounds are sometimes written as two words, *annar hver*, etc., yet each is considered one lexical item.) Probably this state of affairs is just a special case of the constraint that says that only inflected stems undergo u-umlaut (or ANY kind of umlaut and ablaut); another special case of this type are adjectivally used (indeclinable) present participles such as *talandi* 'speaking', and other indeclinables, e.g. *handlama* 'with paralysed hand or arm'.—For cases such as *sögu-staður* 'historical place', where *sögu-* appears to be inflected relative to the simplex *saga*, see par. 1.

- (23) *annar-hver* 'every other': nom. sg. f. *önnur-hver*, dat. pl. *öðrum-hverjum*
annar-hvor 'one of two': nom. sg. f. *önnur-hvor*, dat. sg. m. *öðrum-hvorum*
annar-tveggja 'one of two': nom. sg. f. *önnur-tveggja*, dat. sg. m. *öðrum-tveggja*
allur-saman -samall 'complete, undivided': nom. sg. f. *öll-sömun*,
öll-sömul, dat. pl. *öllum-saman*

As is well known, Modern Icelandic distinguishes between long and short /*ö*, *y*, *a*/ (and other vowels). The phonetic differences between the short and the long variety of each pair are not negligible, at least as far as /*ö*/ and /*y*/ are concerned; Pétursson (1974:105 and passim) has ascertained experimentally that short /*ö*, *y*/ are more open (often considerably more open) than their respective long counterparts. Yet from the functional point of view there is no detectable difference between the long and the short variants of these sounds. In root-initial syllables the u-umlaut results in /*ö*/ regardless of whether it alternates with long or short /*a*/, and regardless of whether /*ö*/ is of the same quantity as the alternant /*a*/. Cf. *bakari* 'baker' versus *bökurum*, *ax* 'ear of corn' versus *öx*, *gamall* 'old' versus *gamla* versus *gömul* versus *gömlu*, etc. In root non-initial syllables the vocalic quantity is almost invariably neutralized and realized as short. The structure of such syllables does not influence the choice of the u-umlaut reflex, although this can only be illustrated for the VC type: *héröð* versus *héruð*. With the VCC type the illustration cannot be made because there are no reliable examples of the reflex /*y*/ alternating with /*ö*/ before more than one consonant in unstressed syllables. (The alternation /*au*—*öi*/ treated in par. 6.1 involves only short /*au*/ and short /*öi*/, which is due to the fact that the non-anterior nasal consonant appears only in closed syllables; all other vowels are also invariably short before non-anterior nasal.) In view of the above, the quantity problems are ignored in the present paper as irrelevant to the matter at hand.

4. Morphological environment of u-umlaut. Both mono- and polysyllabic stems susceptible to u-umlaut undergo it in the same morphological environments. The type of umlaut (whether Initial, or Final, or a third variety) does not depend on the morphological environment, but

on other factors. Specifically, I am not aware of any cases where one inflectional form of a lexical item would display one type of u-umlaut, e.g. Initial umlaut, and another form of the same paradigm would display another type of u-umlaut, e.g. Final umlaut. For instance, as far as I know, there is no tendency to use *héruð*- more than *héröð*- (both of *hérað* 'district') in the dative plural, and *héröð*- more than *héruð*- in the nominative/accusative plural.

U-umlaut takes place in the following morphological environments:

(I) Nouns susceptible to u-umlaut. All such nouns display u-umlaut in the dative plural: *aftan(n)* 'evening' versus *öftn-um*, *barn* 'child' versus *börn-um*, *gjöf* 'present' versus *gjöf-um* (nom. pl. *gjaf-ir*), *gata* 'street' versus *göt-um*, etc.

The nouns of the neuter gender also display u-umlaut in the nominative/accusative plural: *land* 'land' versus *lönd*, *hjarta* 'heart' versus *hjört-u*, etc.

Strong feminine nouns also display u-umlaut in the nominative, dative and accusative singular: nom./dat./acc. *gjöf* 'present', etc.; the *pöntun* nouns even in the genitive singular, e.g. *pöntunar*.

The u-stem nouns also display u-umlaut in the nominative and accusative singular (and, archaically, accusative plural): *björn* 'bear', nom. sg. *björn*, acc. sg. *björn*, archaic acc. pl. *björn-u*; the *söfnuður* nouns even in the dative singular, nominative and accusative plural: dat. sg. *söfnuði*, nom. pl. *söfnuðir*, acc. pl. *söfnuði*.

Weak feminine nouns also display u-umlaut in the oblique singular and in the nominative/accusative plural: *saga* 'history', oblique sg. *sög-u*, nom./acc. pl. *sög-ur*.

Comments on a few exceptional nouns: (a) *Faðir* 'father'. This lexical item being one of the most basic and frequent in the language, it is not unnatural that it is irregular; its oblique singular stem is *föður*-, its plural stem is *feðr*- before a vowel, *feður*- elsewhere. (b) *Regin* n. 'gods', plurale tantum, has *a* in the genitive plural, *ragna*, and *ö* in the dative plural, *rögnum*, otherwise *e*, *regin*; like *faðir*, *regin* is an exceptional noun. (c) *Altari* n. 'altar': its most usual nominative/accusative plural is *ölturu*. It is the only word of its kind as far as its inflexion is concerned, whereas the u-umlaut takes place in the same case forms as with the type *barn*: in the nominative/accusative and dative plural. (d)

In the forms of the substantivized present participles the u-umlaut does not operate, for the plural normally contains the suffix *-end-* and is thus not susceptible to u-umlaut. There is, however, an older dative plural in *-önd-um* (normal *-end-um*) contrasting with the singular suffix *-and-* (and with the older gen. pl. *-and-a*, normal suffix *-end-a*). However, the history of the u-umlaut in the present participle is complicated and requires extensive separate treatment; *-öndum* and *-endum* are not the only dative plural endings of the present participle in the history of Icelandic. This will not be discussed further here.

(II) Adjectives susceptible to u-umlaut (including past participles). All such adjectives display u-umlaut in the following strong cases: dative singular masculine/neuter and dative plural; in the following weak cases: oblique singular feminine and the plural of all three genders. E.g. *valinn* 'chosen': dat. sg. m. *völd-um*, dat. sg. n. *völd-u*, dat. pl. *völd-um*; weak oblique sg. f. *völd-u*, weak plural of all three genders *völd-u*.

In addition to this, all adjectives except those ending in *-in-* display u-umlaut in the strong nominative singular feminine and in the nominative/accusative plural neuter: *fagur* 'fair', strong nom. sg. f. and nom./acc. pl. n. *fögur*. The strong nominative singular feminine and nominative/accusative plural neuter of *valinn* is *valin*, not *völin*; if *-d-* is substituted for *-in-*, as it sometimes is, the u-umlaut does take place: nom. sg. f. and nom./acc. pl. n. *völd*, not *vald*.

With adjectives it is necessary to distinguish (a) strong inflexion, (b) weak inflexion, (c) inflexion of the comparative, and (d) lack of inflexion. Lack of inflexion entails lack of u-umlaut, cf. *afl-vana* 'deficient in strength', *ein-mana* 'solitary', etc. Indeclinable adjectives include the adjectival usages of the present participle: *talandi* 'speaking'.

(III) Verbs susceptible to u-umlaut (except their participles, for which see above). All verbs display u-umlaut in the first person plural present (indicative, subjunctive, imperative) and in the preterite plural (indicative, subjunctive). E.g. *kalla* 'call': 1p. pl. pres. *köll-um*, *köll-umst* ~ *köllustum*, pl. pret. *köll-uðum*, *köll-uðuð*, *köll-uðu*; *köll-uð-umst* ~ *köll-uðustum*, *köll-uðuzt*, *köll-uðust*. This formulation implies that root vowels which are due to such processes as ablaut and i-umlaut are inserted into the phonological representations before u-umlaut steps

in. Otherwise the above formulation predicts wrong results with the *krefja* verbs (outside plural preterite indicative), where the first person plural present is *kref-jum* (not *kröf-jum*), and preterite plural subjunctive *kref-ðum* etc. (not *kröf-ðum*); with the *vaka* verbs, i.e. with those *ē*-verbs undergoing i-umlaut in the preterite subjunctive, cf. pret. subj. *vek-tum* etc. (not *vök-tum*⁷); with the strong verbs, where the preterite contains other vowels than *ö*, e.g. *grafa* 'dig', pret. ind. *gróf-* (not *gröf-*), pret. subj. *græf-* (not *gröf-*).

Supposing that the place at which the u-umlauted vowel is inserted into the stem is determined in some independent way, the environment of u-umlaut can be stated entirely in the morphological terms listed above.

5. On /*ö*/ as the basic vowel of the u-umlaut alternation. The above list of morphological environments (par. 4) in which *ö*, *u* are found instead of *a*, is composed so as to imply that /*a*/ is the basic vowel from which /*ö*, *y*/ are derived in appropriate contexts (presumably by aid of morphological rules of the format /*a*/ → /*ö*/ and /*a*/ → /*y*/). Yet this is by no means necessarily the case. In principle /*a*/ can be basic in some types, /*ö*, *y*/ in others. Alternatively, it may be that /*a*/ and /*ö*, *y*/ are considered of equal standing, in some types at least. Even more complicated situations can be imagined. Different speakers might have different grammars in this respect. (It is a weak point of Orešnik 1975 that it assumes, without argumentation, that /*a*/ is the basic vowel of all synchronic u-umlaut alternations.)

In the following instances it is possible that /*ö*/ rather than /*a*/ is the basic vowel of the u-umlaut alternation:

Strong feminine nouns may have /*ö*/ as the basic vowel in the singular, and /*a*/ as the basic vowel in the plural. E.g. the lexical representation of *gjöf* 'present' may be: /*g₃öv*/ in the singular, /*g₃av*/ in the plural. The morphological rule /*ö*/ → /*a*/ produces the /*a*/ of the gen. sg. *gjaf-ar*, and the morphological rule /*a*/ → /*ö*/ produces the /*ö*/ of the dat. pl. *gjöf-um*.⁸

⁷ Þorkelsson 1902:139 reports pret. subj. *vakti* (without i-umlaut in the root syllable) from *Skaftafellssýslur*.

⁸ The hypothesis operating with two-stem lexical representations of *gjöf* nouns predicts the following concerning loanwords into Icelandic and domestic nouns

The same type of lexical representations is likely to be valid for the *pöntun* nouns. A typical lexical representation would be: /pönt/ in the singular, /pant/ in the plural (assuming that *-an/-un-* pertain to the case desinences). The only difference from the *gjöf* nouns would be that no morphological rule would apply in the genitive singular, and the /ö/ of the singular lexical representation would remain intact, *pöntunar*. Nouns such as *afhöfðun* 'decapitation' would have /ö/ both in their singular and plural lexical representations.

The u-stems are likely to have /ö/ in their lexical representations, at

changing declension class: If such stems originally contain /a/ as their only or rightmost vowel, and if they join the ranks of Icelandic strong feminine nouns, they behave in one of the following ways. EITHER such stems develop two-stem lexical representations, with /ö/ in the singular, with /a/ in the plural, OR they keep a one-stem lexical representation, with /a/, in which case they do not undergo any u-umlaut in the singular (there being no rule of the form /a/→/ö/ in the singular of strong feminine nouns), but do undergo it in the dative plural (where there operates a rule of the form /a/→/ö/). This prediction is borne out by the facts:

Classical Icelandic *nagl* 'nail', root noun, masculine, became feminine in pre-Reformation times. Its singular joined the ranks of the strong feminine nouns and the lexical representation of the singular developed /ö/ instead of /a/, so that the forms are now nom. sg. *nögl*, gen. sg. *nagl-ar*, just as with *gjöf*.

In Classical Icelandic the feminine *iō*-stem noun *öx* 'axe' contained /ö/ in all of its case forms: gen. sg. *öx-ar*, dat./acc. sg. *öx-i*, nom./acc. pl. *öx-ar*, etc. In the modern language the noun has joined the *gjöf* nouns as far as its root vowel is concerned (lexical representation sg. /öx/, pl. /ax/), partially also with respect to the endings (nom./acc. pl. *öx-ar* > *ax-ir*), so that now the nominative singular is *öx-i*, gen. sg. *ax-ar*, dat./acc. sg. *öx-i*, nom./acc. pl. *ax-ir*, etc.

Classical Icelandic *dögg* 'dew', *lögg* 'croze', feminine *wō*-stems, have later been attracted into the orbit of the *gjöf* nouns, i.e. they have assumed partially new endings and developed two-stem lexical representations, sg. /dögg/, pl. /dagg/, and sg. /lögg/, pl. /lagg/. Cf. old gen. sg. *dögg-var*, *lögg-var*, modern *dagg-ar* (Bandle 1956:226), *lagg-ar*; old nom. pl. *dögg-var*, *lögg-var*, modern *dagg-ir*, *lagg-ir*.

Cases of domestic and naturalized stems which manifest feminine one-stem lexical representations. These can be illustrated with popular loanwords such as *art* f. 'sort, kind' (*art-* undergoes u-umlaut freely otherwise, e.g. in *vanartaður* 'vicious', dat. pl. *vanörtuðum*), *vakt* f. 'watch' (umlauted *vakt-* in the sundry forms of *vakta* vb. 'watch', *vaktari* 'guardian', etc.), *forakt* f. 'contempt' (umlauted *-akt-* in *forakta* 'despise'), *andakt* f. 'devotion', *magt*, *makt* 'might, honour', *dragt* f. 'coat and skirt', which keep their /a/ unchanged in their singular inflected forms.

least in the singular. E.g. /sk₃öld/ 'shield'. The morphological rule /ö/ → /a/ would produce *a* in the genitive singular. I dare not state an opinion on the situation in the plural of these nouns.

/ö/ is very likely the basic vowel in the type *söfnuður*. The morphological rule /ö/ → /a/ introduces *a* into the gen. sg./pl. *safnaðar*, *safnaða*.

/ö/ may be the basic vowel in the weak feminine nouns, and the morphological rule /ö/ → /a/ operate in the nominative singular and in the genitive plural (nom. sg. *saga*, gen. pl. *sagna*).⁹

Moreover, when the originally neuter noun *válað* 'misery' appeared temporarily as feminine in the New Testament 1540 and Guðbrandsbiblíá 1584 (see Helgason 1929:401; Bandle 1956:201), it did not umlaut its /a/ in, say, its dative singular: NT *af volad sinni*, GB *volat*, not *volöð* or *voluð*. Similarly *mann-líkan* 'idol', normally neuter, appears as feminine in Guðbrandsbiblíá 1584 (Bandle *ibidem*), but does not undergo u-umlaut in the nominative singular: *ein Mannlíkan*, not *-ön*, *-un*.

Nouns such as *art* above undergo u-umlaut in the dative plural, if they have plural forms at all. E.g. *dragt* 'coat and skirt', dat. pl. *drögt-um*. The contrast between umlautless singular and umlauted dative plural follows if a one-stem lexical representation with the root vowel /a/ is posited.

The genitive singular /ö/ → /a/ rule is occasionally dropped, with the result that /ö/ is realized on the phonetic level even in the genitive singular. This can be documented with historical facts. E.g. Bandle 1956:38 has culled the following two genitive singular case forms from Guðbrandsbiblíá 1584: *Vesølldar* (normal gen. sg. *vesald-ar*, of *vesöld* 'misery') and *styrjölldar* (normal gen. sg. *styrjald-ar*, of *styrjöld* 'war'). Further, the genitive singular of the feminine proper name *Ólöf*, normally *Ólaf-ar*, appears as *Ólöf-ar* in the titles of post-Reformation folk-songs, see Helgason 1962:176, 1965:105.

⁹ The postulation of the rule /ö/ → /a/ in the nominative singular of the feminine weak nouns helps to explain the peculiar development of the words *flaga* and *amaba* in Modern Icelandic. The weak noun *fluga* 'fly' became *flöga* in the town of Hafnarfjörður (11 kms from Reykjavík) owing to *flámæli*, and the paradigm nom. sg. *flöga*, oblique sg. *flögu* was changed—presumably under the influence of the rule /ö/ → /a/ in the nominative singular—to the paradigm nom. sg. *flaga*, oblique sg. *flögu*. (The facts were given in personal communication from Jón Helgason, April 1975.) Another example of the same kind is the learned naturalized noun *amöba* 'amoeba', which has developed a side form in the nominative singular, *amaba*, again presumably under the influence from the rule /ö/ → /a/.

Baldur Jónsson has drawn my attention to the word *tölva* 'computer', originally made by Sigurður Nordal on the analogy of *völva* 'prophetess'. Instead of *tölva*, *talva* (oblique singular *tölvu*) is now often used, a form which seems to be due to

6.1. Consider now the standard Icelandic alternation /au ~ öi/ before a non-anterior (i.e. palatal or velar) nasal consonant. For examples see (24a). This alternation is a product of the historical processes of u-umlaut and subsequent diphthongization (*á* > [au], *ö* > [öi]) before a non-anterior nasal. The inclusion of this alternation in the present treatment of /a ~ ö/ and /a ~ ʏ/ is arbitrary, for I cannot prove that the alternations /a ~ ö/ and /a ~ ʏ/ on the one hand, and /au ~ öi/ on the other belong together from the synchronic point of view. A weak argument in favour of the two alternations being closer to each other than either of them to any third alternation in the synchronic grammar of Icelandic is that the two alternations occur in the same morphological

(24) a.	<i>langur</i> 'long',	nom. sg. f.	<i>löng</i>
	<i>banki</i> 'bank',	dat. pl.	<i>bönkum</i>
b.	<i>banka</i> 'knock',	pret. pl.	<i>bönkuð-</i>
	<i>sanka</i> 'gather'		<i>sönkuð-</i>
	<i>hanka</i> 'provide with a handle'		<i>hönkuð-</i>
	<i>tanka</i> 'refuel'		<i>tönkuð-</i>
	<i>ranka</i> 'remember dimly'		<i>rönkuð-</i>
	<i>jánka</i> 'say <i>já</i> '		<i>jánkuð-</i>
c.	<i>spranga</i> 'walk sprightly',	pret. pl.	<i>sprönguð-</i>
	<i>stanga</i> 'goad'		<i>stönguð-</i>
	<i>hand-langa</i> 'hand'		<i>-lönguð-</i>
	<i>fanga</i> 'capture'		<i>fönguð-</i>
	<i>banga</i> 'hammer'		<i>bönguð-</i>
	<i>ganga</i> 'go',	1p. pl. pres.	<i>göngum</i>
	but <i>anga</i> 'smell',	pret. pl.	<i>anguð- ~ önguð-</i>
d.	<i>rangla</i> 'stroll idly',	pret. pl.	<i>rangluð-</i>
	<i>dangla</i> 'strike lightly'		<i>dangluð-</i>
	<i>angra</i> 'anger'		<i>angruð-</i>

the same kind of development as witnessed by *amöba* > *amaba* and *flöga* > *flaga* above.

Stefán Karlsson has drawn my attention to the Christian name *Marja*, oblique singular *Marju*, without any u-umlaut. This lexical item contains lexicalized /a/ in its stem: /marj+a, +ʏ/ (in contradistinction to, say, *saga*, which contains lexicalized /ö/). Since no /a/ → /ö/ rule operates in the declension of weak feminine nouns, the *a* of *Marja* is never changed to *ö*.

- | | |
|-------------------------------------|----------------------|
| <i>einangra</i> 'isolate' | <i>einangruð-</i> |
| <i>hangsa</i> 'idle' | <i>hangsuð-</i> |
| <i>flangast</i> 'fawn and coax' | <i>flangsuð-</i> |
| <i>slangra</i> 'sling; stroll idly' | <i>slöngruð-</i> and |
- e. I. past participles of weak verbs *slangr-uð*
 nom. sg. f. *jánkuð-* of *jánka*
einangruð- of *einangra*
 etc.
- II. derivatives of verbal stems sub d
einangrun 'isolation'
einangrari 'insolator', dat. pl. *einangrurum*
ranglari 'vagrant' *ranglurum*
hangsari 'dawdler' *hangsurum*
flangsari 'fawner' *flangsurum*
- III. other non-verbs
bangsi 'teddybear', dat. pl. *bangsum*
blánka 'bleach', oblique sg. *blánku*
leiðangur 'expedition', dat. pl. *leiðöngrum*,
 rarer also *leiðangrum*, cf. Helgason in Holberg 1948:296
fanginn 'captured', dat. pl. *föngnum*, rarer
 also *fangnum*, cf. Helgason *ibidem*

environments and are in complementary distribution in the sense that /au—öi/ only takes place before a non-anterior nasal, /a—ö/ and /a—y/ elsewhere.

/a—ö/ occurs with greater regularity than /au—öi/. For instance, there is *skammur* 'short', dat. pl. *skömmum*, parallel to *l[au]ngur* 'long', dat. pl. *l[öi]ngum*; on the other hand, there is *kalla* 'call', 1p. pl. pres. *köllum*, pret. pl. *kölluð-*, but *angra* 'anger', of the same conjugation, 1p. pl. pres. *[au]ngrum* (not *[öi]ngrum*), pret. pl. *[au]ngruð-* (not *[öi]ngruð-*). No treatment of the discrepancy of which *löngum* and *angrum* are an example has been published. As far as I can see, the alternation /au—öi/ occurs almost regularly (i.e. in the same contexts as the alternation /a—ö/) in non-verbs; a few exceptions are enumerated in (24e). In verbs, however, there is a complication in that some verbs do, and others do not, display the alternation /au—öi/, and a few vacillate between /au—öi/ and the lack of alternation. What I consider—im-

pressionistically and on the basis of the OHÍ data—to be the more generally used form in contexts where u-umlaut is expected is adduced in the right column of (24b–e).

The alternation does occur in verbs whose present stems end in what is written *nk*, see (24b) for examples, although forms with lacking alternation can also be heard, with some verbs more, with others less often.

Verbs whose present stems end in what is written *ng* regularly experience the alternation /au—öi/. For examples see (24c). With the strong verb *hanga* ‘hang’, /öi/ appears in the 1p. pl. pres., *h[öi]ngum*, whereas it is absent from the Northern weak pret. pl. *h[au]ngdum* etc. (not *h[öi]ngdum*, Jakob Benediktsson *viva voce* in March 1975), presumably because another consonant follows *ng* in the preterite and the forms belong to the type exemplified sub (24d).

Verbs whose present stems end in what is written *ng* + consonant more often lack the alternation /au—öi/ than have it. For examples see (24d). It is difficult to see what the generalization is. No alternation before *ng* + consonant? Why then *slöngruð-* (and *slangruð-*) of *slangra*, as against *angruð-* (never *öngruð-*) of *angra*?

The historical reasons for this unusual development are also unclear. Bandle 1956:37 draws attention to the lack of u-umlaut in the relevant forms of *angra* in Guðbrandsbiblíá 1584. He treats *angra* as an isolated case (because other examples of the type do not occur in his corpus), and assumes that the lack of u-umlaut may be due to the influence of verbs such as *háttá*, *mála*, which of course do not u-umlaut their root vowels. I find this explanation too general.

6.2. The diphthong [ai] usually does not participate in any u-umlaut alternations, see (25) for examples. There is, however, an exception to

- (25) *grænn* ‘green’, nom. sg. f. *græn*, dat. pl. *græn-um*
æra ‘drive mad’, 1p. pl. pres. *ær-um*, 1p. pl. pret. *ær-ðum*
gæi ‘guy’, dat. pl. *gæ-jum*
Sóraja Persian given name, oblique sg. *Sóraj-u*

this statement in standard Icelandic: In a considerable number of words there is an alternation [öi—öq—ai—aq], where the alternants beginning with [ö] appear in the environments of u-umlaut, and the [a]-initial alternants outside those environments. For examples see (26).

- (26) *félag*- n. 'society', nom. sg. *félag* [-aq], definite *félagið* [-aijɪð], dat. sg. *félagi* [-aijɪ], nom./acc. pl. *félög* [-öq], definite *félögin* [-öijm], dat. pl. *félögum* [-öqym]
heilag- 'holy', nom. sg. m. *heilagur* [-aq-], weak *heilagi* [-aijɪ], nom. sg. f. *heilög* [-öq], etc.
dag- m. 'day', acc. sg. *dag* [-aq], definite *daginn* [-aijɪn], dat. pl. *dögum* [-öq-]

The following processes have cooperated in the history of the language to bring about the alternations illustrated sub (26): (a) the palatalization of velar consonants before /ɪ/-initial endings; (b) the change of palatalized /q/ to /j/; (c) u-umlaut; (d) the diphthongization of the vowel followed by /j/. The processes (a-d) are independent of each other by virtue of the fact that they are not co-extensive. One can therefore postulate the existence of a palatalization rule, a $q' > j$ rule, a diphthongization-before-*j* rule, and a u-umlaut rule, where the rules are ordered as just given, except that the u-umlaut rule must precede the diphthongization rule, for the u-umlauted *ö* becomes *öi*, and the non-umlauted *a* becomes *ai* through diphthongization. A few sample derivations are given sub (27), q.v. (The effect of u-umlaut has been

(27)		-laq	-löq	-laq + ɪ	-löq + ɪn
	palatalization	—	—	-laq' + ɪ	-löq' + ɪn
	q' → j	—	—	-laj + ɪ	-löj + ɪn
	diphthongization	—	—	-laj + ɪ	-löij + ɪn

incorporated into the input representations.) However, it has not been proved that the rules whose operation is assumed in (27) really are a part of Modern Icelandic descriptive grammar. Therefore further discussion of the descriptive problems raised by the alternations illustrated in (26) has to be postponed until such time that relative certainty is achieved concerning the status in Modern Icelandic grammar of the rules involved in (27).

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