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ICELANDIC VOWEL QUANTITY: ISSUES OF THEORY AND DESCRIPTION

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The length of vowels and consonants as well as the interrelations between the vocalic and consonantal portions of the syllable were established for the modern Scandinavian languages following what Haugen (1976: 258) called the great quantity shift. Although the process operated in different ways and at different times in the various dialects of mediaeval Scandinavian, the results conspired to stabilise the distribution of short and long vowels in stressed syllables and effectively eliminated vocalic length as a contrastive property in most of the languages. This was brought about by such means as vowel shortening, vowel lengthening and consonantal gemination. Icelandic underwent the process quite late, possibly not sooner than the sixteenth century, and there is even some evidence that it had not fully run its course until some time in the eighteenth century (Árnason 1980: Chap. 4). The historical process, comprising both lengthening and shortening, is outside the scope of this paper; in what follows we will consider the situation in the modern language in some detail with a view to determining what - if any - role length plays in it, and also how certain facts of Icelandic can be accommodated within a theoretically-biased phonological description. We start by reviewing the basic facts.

In the modern language vowels in stressed syllables are long in a strictly defined set of contexts, which are listed in all textbooks and phonetically-based linguistic descriptions (Einarsson 1945: 4-5, Guðfinnsson 1946: 69-72, Haugen 1958, Benediktsson 1959: 300-301, Steblin-Kamenskij 1966, Orešnik and Pétursson 1977, Pétursson 1978: 46-49, Kress 1982: 19, Gíslason & Práinsson 1993: 44-47, Thráinsson 1994: 149-150). The long nuclei comprise both vowels and diphthongs; Icelandic, rather like Faroese and apparently also Old English, distinguishes long and short diphthongs, where the latter behave distributionally in

the same way as short vowels. Primary stress falls regularly on the first nucleus in a word. Thus stressed nuclei are invariably long in the following cases!

- [1] i. when they are word-final, e.g.: bý [pi:] '(I) live', gá [kau:] 'check', svo [svo:] 'so', fæ [fai:] '(I) get';
 - ii. when they are followed by another vowel or at most one consonant,
 e.g.: snúa [snu:a] 'to turn', vör [vœ:r] 'lip', vor [vo:r] 'spring', gata [ka:tha] 'street', æði [ai:δi] 'madness', bróðir [prou:ðir] 'brother', fagur [fa:γγr] 'beautiful':
 - iii. when they are followed by a combination of two consonants conforming to the requirement that the first be one of [ph, th, kh, s] and the second any of [j, v, r], e.g.: nepja [ne:phja] 'cold weather', titra [th:tha] 'shake', götva [kœ:thva] 'discover', skrökva [skrœ:khva] 'tell a lie', hjūkrun [ju:khryn] 'nursing', hösvir [hœ:syɪr] 'wulf', gresja [kræ:sja] 'gather herbs' etc.

In all remaining cases, i.e. before a geminate or a consonantal cluster, the nucleus is assumed to be short, unless the consonantal cluster happens to be of the type specified under iii above. Thus there are short vowels in labba [lap:a] 'walk', vagga [vak:a] 'cradle', grænn [kraitn] 'green, masc.', þykkur [θyhkyr] 'thick, masc.', finna [fin:a] 'find'. semia [semia] 'compose' etc. Vocalic length is thus regarded as being automatically determined by the following environment. Additionally, secondarily stressed vowels are long (or lengthened) before a single consonant, e.g.: furðulegur [fyroy le:yyr] 'amazing', bvottavél ['Ovohta vje:l] 'washing machine'. Other vowels are normally short, except when they receive contrastive (emphatic) stress, in which case their length is determined by the same principles as above, e.g. hestAr [hes'ta:r] 'horses' not hestlr [hestur]. Within phonological models which distinguish between a more abstract (phonemic, phonological, underlying) and a shallow (allophonic, surface, phonetic) representation it has usually been deemed necessary to decide whether the basic vowels are long and are shortened in specified environments or, conversely, whether they start as short and are lengthened (select long allophones) in the required contexts. The majority view seems to have favoured the second option, even though the issue is certainly far from decided, as shown by Árnason (1998). The changing nature of phonological theory must be largely blamed for the fact that some issues which were of overriding importance at one stage become marginal or non-existent at a later point in time, while issues now hotly debated were earlier not even regarded as worthy of notice. It is to be hoped that the different views reflect a genuine development which increases our understanding of the sound structure of language, rather than merely recording passing theoretical fads and transient fascinations. With reference to the specific data of Icelandic vowel quantity the real question concerns the principle(s) which regulate the appearance of short and long vowels, and is ultimately related to the role and structure of the syllable in phonological regularities.

Assuming for the moment, counterfactually, as we will see presently, that the statements i-iii above are correct and exhaust the situation in the language, one may wonder why this description needs to be improved on. In other words, what exactly is wrong with a list-like description like this? The answer to a query of this sort must be that phonological descriptions are required to meet higher standards than that of reflecting the facts of the language. To make this claim extreme, let us note that even a list-description could be viewed as otiose: it is perfectly feasible to include information about the length of vowels of all words in the language in the lexical entries for particular items, in the same way as the information about the spelling of words and their forms is. The unsatisfactory results of such a procedure hardly call for any comment. The formulation provided in the three statements above attempts to go beyond any specific lexical information and constructs generalisations that would also hold for new or nonce formations, borrowings, place names etc. As such, it is an obvious improvement over an exhaustive listing of forms. Its fundamental insufficiency is connected with the fact that it makes no linguistic sense of the data.

Consider clause ii: vowels are long when followed by a vowel or at most one consonant. This clause combines and disguises two separate statements: vowels are long before another vowel and vowels are long before a single consonant. The two clauses have nothing in common and the fact that they are conjoined can only be fortuitous; in other words, a description based on such statements could be equally plausible if the facts of Icelandic were different, say if vowels were short before another vowel but long before a single consonant. In fact, the schema of the three clauses is flawed in exactly the same manner: it fails to connect the three statements in anything but an accidental fashion. Why should vowels be long when word-final and before a single consonant? Why should they be long before the specified class of two consonants (clause iii) rather than before any other such class comprising two arbitrary consonants, say [v, ŏ, l] plus [j, r, k]? None of these questions finds any natural answer in a list-like formulation; the list mechanism admits descriptions of real-language facts on a par with totally arbitrary or downright absurd possibilities because it has no explanatory power. A better description must be sought, which really means that a better theoretical model must be constructed.

Before attempting that let us note that the list-like formulation is not descriptively adequate in the sense that it does not cover the full set of facts of the language. Consider the examples in [2].

[2] a. febrúar [fɛ:pruar] 'February'
edrú [ɛ:tru] 'sober'
Afríka [a:frikʰa] 'Africa'
hebreskur [hɛ:prɛskyr] 'Hebrew'

In the transcriptions below all plosives are voiceless and differ in the place of articulation and the presence or absence of aspiration. Fricatives are voiced or voiceless, even if this is on the whole predictable. Sonorants are contextually devoiced. The vowels [i, i, γ, ε, œ, a, o, u] and the diphthongs [ei, ai, au, œγ, ou] can be short or long, as discussed in the body of the paper. Geminate consonants are also possible, although their distribution is restricted.

Madrid [matrit] 'Madrid' vogrís [vo:kris] 'sty (in the eye)'

- iprótt [i:θrouht] 'sport'
 kátlegur [khau:thh]eγγr] 'merry'
 athuga [a:thγγa] 'consider'
 ofherma [o:vherma] 'exaggerate'
 aðhald [a:θhalt] 'support'
 atkvæði [a:tkvaiði] 'syllable'
- c. Ísland [i:slant] 'Iceland'
 vinhollur [v::nhotlyr] 'loyal'
 útlenskur [u:t^(h)lenskyr] 'foreign'
 alheill [a:lheitl] 'unharmed'
 stórhátíð [stou:rhaut^hið] 'major festivity'

The full relevance of these examples need not be investigated here but their general significance is quite simple: the traditional rules as summarised in [1] are not fully adequate since there is a whole range of facts they fail to cover. In [2a] there is a group of borrowings, although some of them belong to the completely assimilated and basic vocabulary, where a vowel is long although the following consonantal cluster is not specified as inducing length by [1c]. The remaining examples have been divided into two groups on somewhat questionable grounds, perhaps, since they all can be regarded as morphologically complex. In [2b] we have clear morphological derivatives involving affixes, while the words in [2c] could be argued to be compounds. Individual cases might be disputed but a high degree of lexicalisation must be recognised for both groups and in particular for group [2b]. However, it is not the very fact of being a derivative or a compound that is directly to be connected with the length of the stressed vowel. Compare now examples [2b-c] with those in [3a-b]

- [3] a. vonlegur [vonleyyr] 'hopeful'
 frumlegur [frymleyyr] 'original'
 aðdáun [aðtaun] 'admiration'
 aðkoma [aðkhoma] 'arrival'
 ofnota [ovnotha] 'misuse'
 oftraust [ofthreyst] 'excessive trust'
 - Írland [irlant] 'Ireland'
 Grænland [krainlant] 'Greenland'
 vinmál [vinmaul] 'friendly words'
 vingjöf [vincœv] 'friendly gift'
 algáður [alkauðyr] 'sober'
 alkunna [alkhyn:a] 'known'

These examples demonstrate beyond doubt that affixation or compounding do not invariably result in the first vowel of the complex being long: some of the affixes in [3a] and compound members in [3b] are the same as in [2b] and [2c] respectively. At the very least, then, the examples in [2] and [3] very clearly show the need for a revised version of the length rule. The consonantal cluster context [1c] cannot handle the borrowings in [2a] while the derivatives in [2b-c] and in [3] require that the relation between morphological complexity and lengthening be unravelled and articulated in unambiguous terms. The traditional formulation can only be regarded as the first approximation to a phonological regularity of the language.

With these observations in mind, let us note the traditional motivation assumed to lie behind the lengthening process(es). It is believed that as a result of the quantity shift the stressed syllable became uniformly heavy either through the length of the vowel, e.g. da(gur) [ta;yyr] 'day', or through the presence of a consonantal coda after a short vowel, e.g. gel(ta) [celta] 'bark, vb.'. An interpretation along these lines seems innocuous enough but it makes a surreptitious assumption concerning syllabification, i.e. it assumes that notions such as a heavy or a light syllable are clearly-defined and unambiguous. This is certainly not the case, or at least not in any but the simplest cases few people would dispute the fact that in gelta [cel-ta] the first syllable is heavier than the second. However, if the motivation behind the Scandinavian quantity shift was to make stressed syllables heavy, then - on the traditional views of syllable structure - the motivation singularly fails with monosyllables ending in a consonant. Note that all the words below in [4] used to be heavy prior to the operation of quantity shift, in the same way as the first syllable of gelta is heavy today, i.e. their rhymes consisted of a short vowel and a consonantal coda. Nonetheless the quantity shift lengthened the vowels, thus producing superheavy rhymes in the language today.

[4] dag [ta:y] 'day, acc. sg.' geð [ce:ð] 'mind' boð [po:ð] 'offer' vör [vœ:r] 'lip' blys [plr:s] 'torch' stuð [sty:ð] 'bump'

Furthermore, originally long vowels were not shortened before a word-final consonant [5a] although this did happen word-internally [5b].

[5] a. fár [fau:r] 'misfortune' b. bálkur [paulkyr] 'section'
dót [tou:th] 'toys' dóttir [touhtrr] 'daughter'
bæn [pai:n] 'prayer' bændur [paindyr] 'farmer, nom. pl.'
is [i:s] 'ice' fúska [thiska] 'dabble'
is [i:s] 'ice' tíska [thiska] 'fashion'
lét [lje:th] 'allowed' létta [ljehta] 'lighten'

Examples like these clearly show that the simple view of heavy and light syllables is untenable. We may conclude that syllable heaviness varies according to the position within a word in the sense that the same sequence must be treated as heavy internally

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and light finally, a conclusion which renders the whole concept of syllable weight useless if not transparently absurd. Alternatively, word-final consonants must be treated as syllabically different from post-vocalic internal consonants. Using the device of extrasyllabicity one could mark word-final consonants as outside the domain of syllable structure; this would render examples like those in [5b] appropriate candidates for stressed-syllable lengthening since the final consonant would not contribute to the weight of the syllable. Apart from the fact that extrasyllabicity as a theoretical device is an ad hoc diacritic of no explanatory value, there is evidence in Icelandic that this solution could not work.

Pétursson (1978: 48) noted that there are monosyllabic words ending in two consonants that require a long vowel. Examples are not very numerous, but they are completely unambiguous (Thráinsson 1994: 150).

[6] sötr [sœ:tʰʃ] 'slurping' pukr [pʰY:kʰʃ] 'secretiveness' snupr [sny:pʰʃ] 'scolding' flysj [flɪ:sç] 'peeling'

Marking the last consonant as extrasyllabic does not create the context for lengthening since the syllable is already heavy because of the first consonant in the cluster; marking both consonants as extrasyllabic fares even worse, since there are numerous words ending in a two consonant cluster where the preceding vowel must be short.

[7] eld [ɛlt] 'fire, acc. sg.' nýtt [niht] 'new, neuter'

fjall [fjat] 'mountain' öld [œlt] 'age'

hurð [hyrð] 'door' búnt [puṇt] 'bundle'

ætt [aiht] 'family' feigð [fɛɪyð] 'approaching death'

To make the extrasyllabicity solution work we would have to have a way of marking the two final consonants in [6] as extrasyllabic without doing the same to the words in [7]. Clearly a mechanical procedure which chops off chunks of words is not viable in this case.

Leaving aside for a moment monosyllabic words ending in a single consonant or a consonant cluster, it must be admitted that there is a lot to be said for the traditional interpretation. Recall that lengthening vowels in a light syllable was one of the ways of ensuring that the syllable becomes heavy, an option apparently selected by Icelandic in preference to lengthening the consonant which follows the vowel. If the length of vowels in Icelandic is due to open syllable lengthening, then we can subsume under one heading a few ostensibly distinct processes. The fact that vowels are long when wordfinal [1i] or before another vowel [1ii] is really the same regularity: the second vowel in a sequence (e.g. snúa [snu:a] 'to turn') obviously belongs to the next syllable, hence the first vowel, as the only occupant of its rhyme, must be long. Similarly when a single consonant follows a vowel word-internally, e.g. taka [tha:kha] 'take', the consonant is

unquestionably the onset of the second syllable, and the first one is syllabically in the same configuration as when it appears word-finally or prevocalically.

Turning now to long vowels before specific consonant clusters, [ph, th, kh, s] + [i, v, r], we must note that this context is simultaneously too broad and too narrow, i.e. it overgeneralises and undergeneralises. Examples of the latter case have already been provided in [2a]: there are other consonant clusters besides those the statement lists which require a preceding long vowel (febrúar [fe:pruar] 'February', edrú [e:tru] 'sober' etc.). On the other hand, some of the possibilities listed in the statement are nor recorded (Halldórsson 1950: 52); for example, the homorganic sequence [phv] does not exist, nor is this fact very surprising in universal terms - note the practical absence in English of the [pw] cluster. Obviously, the cluster clause is not intended as a mere record of existing patterns but as a generalisation going beyond individual facts. Note that sequences of an obstruent (a plosive, in particular) followed by a sonorant, e.g. [thr, khv] are perfect candidates for the status of branching onsets. If we assume that the cluster following a vowel forms a branching onset, then obviously the vowel as the only inhabitant of the rhyme must be long. In this way, long vowels before clusters are long for the same reason as they are long word-finally, before another vowel or a single consonant. What is more, the cases for which the traditional formulation fails [2a] are no longer a problem: the offending clusters are all sequences of an obstruent and [r], yet again perfectly well-formed branching onsets2. We conclude that vowels are long wordfinally and word-internally if no consonant appears in the same rhyme.

The above account was restricted to polysyllabic words; if it is to qualify as a viable alternative to traditional accounts it needs to take a stand with reference to monosyllables. The problem of course is that vowels are long in monosyllables ending in a single consonant, and also in certain consonantal clusters, hence we have bak [θa:kh] 'roof', draum [trœy:m] 'dream, acc. sg.', læt [lai:th] 'I allow', skil [skt:l] 'I understand' on the one hand and sötr [sœ:thr] 'slurping', pukr [phy:khr] 'secretiveness' (see [6]) on the other. All these words are assumed to be monosyllabic with the consonant (s) appearing in the coda position. However, the monosyllabic status of the words or the coda status of final consonants is certainly not unquestionably accepted. As we noted above, much of the research within the non-linear version of generative phonology operates with the notion of extrasyllabic consonants, which effectively means that word-final consonants are not codas, hence monosyllabic words ending phonetically in a consonants are in fact open syllables. We noted above that the extrasyllabicity solution does not really work for Icelandic, in addition to being theoretically a poorly motivated diacritic. Within the approach known as Government Phonology, no extrasyllabicity is admitted and all single word-final consonants as well as some

For our purposes we need not decide whether every "lengthening" cluster is a branching onset. In fact there is evidence that this is not the case (Gussmann in press a); what we can take as relevant is that the immediately following or first consonant of the cluster is in the following onset which may be branching if the following sonorant is part of it. Arguably, cases exist where the sonorant appears as the sole occupant of the onset following the one occupied by the obstruent, i.e. where members of the lengthening clusters belong to two separate onsets.

consonantal clusters are invariably in the onset position (for reviews of arguments see Kaye 1990, Harris 1994, Harris and Gussmann 1998). Being in the onset such consonants are licensed by a nucleus which contains no melodic material, i.e. by an empty nucleus. In this sense the phonological difference between, say, tak [$t^ha:k^h$] 'grasp, n.' and taka [$t^ha:k^h$ a] 'take' is that the former ends in an empty final nucleus while the latter's final nucleus contains the melody [a]. In other words, syllabically there is no difference between these forms and hence the phonetic effects with respect to syllable quantity, are identical.

The above reasoning holds true for consonantal clusters just as well. It is not the case that only single word-final consonants are projected as onsets. What is true is that nuclei end phonological domains, which means that they may be preceded by an onset; if a language admits branching onsets, then they can be expected to appear word finally (see also Charette 1991: Chap. 6). This is the case with Icelandic, which means that clusters such as [tho, phr] appearing word-finally must be preceded by a long vowel, while clusters such as [lt, ro] (see examples in [7]) which are never branching onsets must be preceded by a short vowel. No reference to extrasyllabicity is required: onsets as syllabic constituents can appear word-initially, word-internally or, indeed, word-finally. Vowel quantity is determined entirely by the structure of the rhyme: if no rhyme complement in the form of a consonantal coda is found, the vowel must be long. Thus, whenever a consonant following a vowel is in the onset, the vowel must be long. This is irrespective of whether the onset is branching, non-branching or whether there are two consecutive onsets with an intervening empty nucleus. The only condition on long vowels is the presence of stress and the absence of a rhymal complement.

As is generally agreed, a sequence of an obstruent followed by a sonorant can constitute a branching onset while the reverse order of consonants is never possible in that position. Given a sonorant followed by an obstruent we may assume that it is a rhyme-onset domain; thus in titra [th:thra] 'shake' the sequence [thr] constitutes the onset, while in hirta [hirta] 'punish' the cluster [rt] spans the two syllables. It is wellknown that there are fairly rigorous conditions on what can occupy the two positions in a branching onset. A major contribution of Government Phonology, following in the footsteps of some earlier discoveries such as Vennemann's (1988: 40-55) Syllable Contact Law, was to formally recognise the conditions governing possible rhyme-onset combinations (see Kaye 1990, Harris 1990, 1994: 66-81). In brief, for a domain of this type to be established, the rhymal consonant cannot be stronger or more complex than the one found in the onset – for this reason a sequence of a sonorant typically qualifies for a coda (rhymal complement) if followed by an obstruent. While strength or complexity distinctions between such major classes as sonorants and obstruents can be regarded largely as unviolable, it is an empirical matter for the phonology of individual languages to determine finer complexity distinctions among the consonants within a given class. A complete description of quantity in Icelandic would require such an exhaustive characterisation of complexity relations among all consonants. This cannot be undertaken here - instead we will offer just one example of the results this sort of investigation can lead to.

Consider the voiced fricative [v] as it appears in some consonantal clusters. Presumably it can appear in branching onsets (although see Gussmann in press a), e.g. tveir [thvei:r] 'two', götva [kœ:thva] 'discover', which suggests that it is a weak consonant, a conclusion generally recognised for Icelandic: The voiced fricatives are in general very 'weak' and hence possibly better classified as approximants (Thráinsson 1994: 147). Apart from branching onsets, the fricative (or approximant) also appears in non-branching onsets and in the coda; as a result we may have it in the coda when it is followed by an onset, and in the onset when it follows a coda. In either case the preceding vowel is short, as shown in [8].

[8] a. efri [evr1] 'higher' purfa [θyrva] 'need'
b. lifðu [lɪvðy] 'they lived' vöðvi [vœðvɪ] 'muscle'
c. rövla [rœvla] 'blather' bölva [pœlva] 'curse'

In the left-hand column words the voiced spirant occurs in the rhymal position where it is followed by the onset $[r, \delta, l]$, i.e. by a sonorant or another voiced (weak) fricative. Since it occupies the rhymal position, the preceding vowel is short. In the right-hand column the voiced spirant occupies the onset position where it follows a rhymal $[r, \delta, l]$, with the vowel being again predictably short. What is relevant – and intriguing – is that [v] seems to be of the same strength (complexity) as the consonants in the group $[r, \delta, l]$, hence any of these four consonants can find itself either in the rhymal complement or the onset position. At the other extreme, the aspirated plosives $[p^h, t^h, k^h]$ invariably appear in the onset position, hence the vowel they follow must be long; the same is true of some instances of [s], although the situation of the spirant is more complex (see Gussmann in press b).

Our study of vowel length in Icelandic has brought us to consider the nature of consonantal complexity, and the possibility of associating consonants with syllabic positions depending on their complexity and the complexity of the neighbouring segments. It seems that the same considerations should be applied when studying the length of vowels in the derivatives and compounds that Icelandic abounds in. Since any longer discussion is precluded here, let us just illustrate the problem by a few examples. Consider the following pairs of words:

[9] kátlegur [kau:t^(h)leyyr] 'merry' vonlegur [vənleyyr] 'hopeful' atkvæði [a:tk^hvaiðɪ] 'syllable' frumkvæði [frymk^hvaiðɪ] 'original poem'

The plosive following the first vowel in the left-hand column words cannot be placed in the coda position, since then they would be followed (or governed) by a weaker consonant in the onset; as they take their place in the onset the coda position is empty and the vowel must be long. In the right-hand column a nasal is placed in the coda position since the following consonant is either of the same or greater complexity; in such a case the preceding vowel must be short.

As a final example consider the two compounds in [10].

[10] rauðvín [rœyðvin] 'red wine' hvítvín [khvi:t(h)vin] 'white wine'

This example on its own should suffice to dispel any lingering doubts about the relevance of morphology in determining vowel length. There is no such connection, The noun vin 'wine' pronounced in isolation with a long vowel as [vi:n] is combined with the adjectival stems rauð- 'red' and hvít- 'white' pronounced in isolation with long vowels: [rœy:ð], [khvi:th]. The compounds in [10] differ in the length of vowels of their first parts, a discrepancy that can only be associated with the phonological structure of these parts, since obviously there is no morphological or other difference. Note that as a result of combining the adjectives with the noun in the case of rauðvín we obtain a sequence [ov] which - as we have seen above - constitutes a well-formed coda-onset combination, hence the preceding vowel is short; the same mechanism accounts for vöðvi [vœðvi] 'muscle' in [8b] above. The final consonant of hvít on the other hand is an aspirated plosive which must always be projected as an onset, whereby the preceding vowel is long. The regularity is controlled by purely phonological factors with no morphology involved at any stage. Although, of course, we cannot rule out the possibility that some compounds may require morphological information for the adequate formulation of the length regularity, there is no a priori reason why this should be so. One should explore the full range of phonological possibilities before entertaining more complex models involving the interlacing of phonology and morphology (or phonology and anything else for that matter).

The preceding discussion has presented an outline of a possible interpretation of Icelandic vowel length. We will conclude with a warning that an outline remains a far cry from an exhaustive or definitive description. Obviously vowel length does not exist in a phonological vacuum and other regularities may interact with it. As a case in point consider the pair of words man 'slave' – mann 'man, acc. sg.' transcribed as [ma:n] and [man:] respectively (Benediktsson 1963: 133). It is equally plausible to transcribe them as [ma:n] and [man], since arguably a long or geminate nasal before a pause cannot be distinguished from a short one. This would imply that vowel length is – or may be – distinctive in Modern Icelandic. Cases of this sorted have been reported by Pétursson (1978: 48) who argues that words like those in [11] constitute minimal pairs.

[11] röklaus [rœ:klœys] 'without basis' rögglaus [rœklœys] 'without energy'

Concern with minimal pairs may be left to those who attach significance to this relic of the distant phonological past. Let us note that the base nouns $r\ddot{o}k$ [ree:k^h] 'ground, basis' and $r\ddot{o}gg$ [reek:] 'energy, vim' differ not only in vowel length but also in the length of the final plosive. This plosive duration is not perceived when another consonant follows, a phenomenon which is totally unsurprising. If the generalisation were to be confirmed for Icelandic that consonants are never long (geminate) before another consonant, then the length contrast in forms such as [11] could only be viewed as apparent and deriving from another regularity.

Icelandic vowel length offers a challenge both for description and theory. It will probably continue to do so and thus enrich the range of facts to be accounted for and the theoretical machinery which must be recognised in natural languages.

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