A. J. Aitken

The Scottish Vowel-length Rule (1981)¹

(revised c. 1995) Edited by Caroline Macafee, 2015

Editor's Introduction

It was AJA's intention thoroughly to revise this paper, but unfortunately his notes are not always explicit enough for another hand to carry out his intentions. For instance, he sometimes marks a section 'replace' or 'rearrange'. Some of the planned changes, such as the rearrangements, may have been meant simply to clarify the exposition. Others, however, were necessitated by two circumstances.

Firstly, he had made refinements to his reconstruction of the history of the Scots vowels systems. These changes mainly affect the introductory section and do not impact on the argument. The table below that gives a broad outline of the vowel systems corresponds to Table 1 'Vowel systems of Scots: a rough historical outline' in 'How to Pronounce Older Scots' (1977, 2015) and remains substantially the same in AJA's later revision in *The Older Scots Vowels* (†Aitken ed. Macafee, 2002; summarised in Macafee and †Aitken, 2002: §6), the changes being matters of detail.²

The second circumstance is the need to review the data. As AJA explains in his final note, he had access to the collections of the Linguistic Survey of Scotland (Scots Section) (LSS), and used data from a selection of localities. However, the data as subsequently published in volume III of *The Linguistic Atlas of Scotland* (LAS3) are simplified by the removal of the half-long length category. (AJA comments on the testimony of LAS3 in *The Older Scots Vowels* §19.) There is therefore a discrepancy between some of the raw data used by AJA and the data published in LAS3, and there is also a much larger body of data to be taken into consideration.

AJA referred to LAS3 (though without presenting a detailed analysis) in his treatment of the Scottish Vowel-length Rule (SVLR) in *The Older Scots Vowels*, and he also presents there some further small points of evidence for the date by which SVLR was in operation. Some of the relevant paragraphs are inserted here, as noted (with abbreviations silently expanded).

¹ Editor's note: originally published in Michael Benskin and M. L. Samuels eds., *So meny people longages and tonges: Philological Essays in Scots and Mediaeval English presented to Angus McIntosh* (Edinburgh: The Middle English Dialect Project, 1981), 131–157. Reproduced by kind permission of Prof. Michael Benskin.

The text has been edited for uniformity of style with other Aitken papers and some bibliographical references have been expanded or added. The original page and note numbers are shown in square brackets. The change of bibliographic style means that some notes have been dropped. Since digital publication does not suffer the same constraints of space as hard copy, I have laid out the lists of examples more expansively, though it will sometimes be obvious that they started off as connected text in the original. The term 'South Scots' has been replaced by 'Southern Scots'.

² Editor's note: the only differences in the rough outline are some different choices of phonetic symbol, including /y:/ rather than /ø:/ as the ESc reconstruction of vowel 7. In the detailed reconstruction, several further conditioned changes are added, and the phonetic reconstructions sometimes differ from the 1977 reconstruction. See Caroline Macafee and †A. J. Aitken 'The Phonology of Older Scots' (2003, 2015), combined with 'How to pronounce Older Scots' in the present edition.

A. J. Aitken: Collected Writings on the Scots Language

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[131] **1** Introduction

Despite some interest in recent years in the interesting and highly characteristic feature of Scottish vowel phonology which I have called the Scottish Vowel-length $Rule^3$ – hereafter SVLR – only quite incomplete accounts of this have so far appeared. Apart from brief references to some earlier writings of my own,⁴ none of these has anything to say of the probably history of the phenomenon.

The following account cannot claim to be the desirable fully definitive account, which would take into account the *Linguistic Atlas of Scotland*, vol. III (LAS3). Ideally, a full account – a task for a future PhD at least – would survey *all* the available data in written form and display the results of copious studies of tape-recordings and instrumental tests of vowel-durations. And this would be carried out not only for Scotland but also for Ulster⁵ and Northern England. Unhappily my available time has allowed me only to sample randomly some available Scots data – in publications from J. A. H. Murray (1873: 97) to J. D. McClure (1977) – and in a few of the Linguistic Survey of Scotland (Scots Section) (LSS) phonological survey questionnaire answer books. I hope nevertheless that I have succeeded in describing the essential character and range of the phenomenon and indicated some of the more significant phonological data surrounding it and so laid a foundation for a fuller updated account of the future.

^{3 [1]} The name 'Aitken's Law', which was taken up and promulgated by Mary Taylor and Roger Lass in their contributions to the 1973 Edinburgh Conference on Historical Linguistics, was first coined jokingly by David Murison. This was in gentle mockery of the fuss I used to make about the phenomenon in a seminar-course on Scots phonology I conducted some time in the 1960s. The contributions by Taylor and Lass to the 1973 Conference may be seen in Lass (1974) and Taylor (1974). See also Ewen (1977).

A statement of the phenomenon's essentials in an unpublished handout issued by me in 1962, entitled 'Vowel Length in Modern Scots', was then in some respects the most comprehensive account, later (1975) replaced by my hand-out 'The Scottish Vowel-length Rule'. Much the fullest account of the data (for a single dialect) is that of Wettstein (1942: 6–11).

 $^{^{4}}$ ^[2] Apart from 'Vowel Length in Modern Scots' [see previous note – ed.] I have brief historical accounts of the Rule in my 'How to Pronounce Older Scots' (1977: 8–10); and 'Scottish Speech: a historical view with special reference to the Standard English of Scotland' (1979: 101–2 and note 9).

⁵ On the Rule in Ulster see especially Harris (1984: 120–2) - AJA.

2 Vowel systems of Scots

This paper will make frequent reference to the Historical Table of the Scots Vowels (below), using the vowel numbers applied there to refer to the individual historical phonemes in the successive systems.

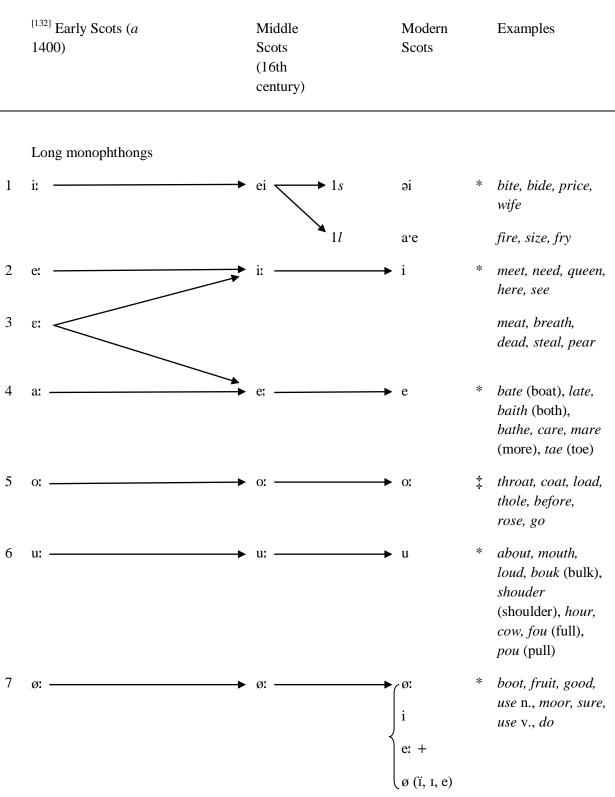
^[134] **3** Essentials and phonetics

There are three principal types of Scottish vowel. One group, which has two unquestioned representatives in vowels 15 and 19, is realised short in all environments in all dialects, and is not subject to the Scottish Vowel-length Rule (SVLR). These are the Early Scots high short vowels now represented respectively by /I/ (in nearly all dialects realised as a much lower and often more centralised vowel than RP or Educated Scottish Standard English /I/), and / Λ / (with various dialectal realisations around the mid or low back unrounded more or less advanced). So all dialects of Scots have realisations of short duration for /I/ (up to about 0.10 sec. in McClure's accent) in all of *bit*, *lid*, *hiss*, *his*, *biff*, *give*, *gin*, *myrrh*, *gird*, *gift*, *guilt*, etc., and for / Λ / (0.11 to 0.15 sec. in McClure's accent) in *butt*, *bud*, *bus*, *buzz*, *buff*, *love*, *bun*, *burr*, *word*, *tuft*, *cult*, etc. (1977). Neither of these vowels occurs normally under stress in the word-final position, though word-final unstressed vowels of similar realisation (and fairly short duration) occur in some accents, as in *Betty* /'bett/, *creepie* /'kript/, *cutty* /'kAtt/, and *barra* 'barrow' /'barA/ or *china* /'tf)=inA/.

A second group of vowels, conversely, maintains in many dialects outwith the Central Scots area fully long realisations in SVLR short as well as long environments and so this group too stands (in the dialects in question) outside of SVLR. This group's regular representatives are 8 and 12, the Early Scots diphthongs with the lowest first and highest second elements, /ai/ and /au/ respectively, now represented by long vowels of the [e] or [eə] quality (vowel 8) and [a], [a], [b], or [b] quality (vowel 12). Some further discussion of these vowels is reserved to a later section.

Most or all of the remaining vowels of the system, namely the Early Scots long monophthongs, excepting, in some dialects, vowel 5, some of the remaining diphthongs (having in Early Scots glides less wide than those of 8 and 12) and the Early Scots mid and low short vowels, potentially operate the Scottish Vowel-length Rule. I shall give first a brief description of the operations of the Rule which have been generally acknowledged (e.g. Murray, 1873: 97; Grant and Dixon, 1921: 60–1; Grant, 1931: xvii; Watson, 1923: 24; Dieth, 1932: 59–65; Wettstein; Zai, 1942: 15–20; and McClure, 1977), and follow this with a discussion of several more doubtful or speculative aspects.

A. J. Aitken: Collected Writings on the Scots Language



Historical Table of the Scots Vowels

Paper 15: The Scottish Vowel-length Rule

	Early Scots (a 1400)	Middle Scots (16th century)	Modern Scots]	Examples
	Diphthongs in -i				
8	ai	> εi	e: e:ə	* *	bait, braid, pail, pair
(4)	a: —	e:	→ e		day, say, awa
Ba	ai#	► εi#	→ əi#		ay (ever), gey (very), May, pay
)	oi	→ oi	→ oi	?‡	Boyd, (avoid, choice,) noise boy, joy
0	ui	→ ui	→ əi	*	quoit, avoid, join, point, oi choice, poisoi
1	ei# e:# -	→ i:	→ i		eye, dee (die), dree (endure), lee (a lie, untruth)

Historical Table of the Scots Vowels, cont.

A. J. Aitken: Collected Writings on the Scots Language

	^[133] Early Scots (<i>a</i> 1400)	Middle Scots (16th century)	Modern Scots	Examples
12	Diphthongs in -u au	→ a:		‡ faut (fault), saut (salt), fraud, auld (old), mawn (mown), cause,
13	ou	→ ou	→ Au	 (inowil), cause, law, snaw (snow), aw (all), faw (fall) * nout (cattle), louse (loose), four, owre, chow (chew), grow (and words such as
14	eu iu iu	▶ iu	iu { ju	 words such as about, loud, house in Scottish Standard English) ?† duty, feud, rule (neuk some dialects), news,
				<i>dew, few, blue</i> <i>true, (plewis</i> ploughs, in some dialects)

Historical Table of the Scots Vowels, cont.

Early Scots (a 1400)	MSc (16th c)	Modern Scots	Examples
Short Monophthongs			
15 г —			† bit, lid, hiss, give, mirrh, gird, his
16 ε —	ε ——	ε	* met. bed, serve, Perth, meh (cry of sheep)
17 a ———	→ a	→ a	* sat, lad, man, far, mar, jazz, vase, Plaza, Da (father), lah
18 o ———	• 0	→ o	* cot, God, on, horse, Forth
19 u —	→ u	Λ	† butt, bud, bus, buff, love, word, buzz

Historical Table of the Scots Vowels, cont.

* Items subject to SVLR

† Items with invariably short realizations, irrespective of environment, in all dialects

‡ Items with invariably long realizations, irrespective of environment, in some dialects

In some (mainly Central Scots?) dialects the Rule seems to operate for all the specified vowels, and, in addition, in some Central Scots dialects, 8 and 12, and in all dialects for at least some of the specified vowels. For end-stressed syllables, the Rule claims that, other things being equal (such as situation in the tone-group) and excluding the effects of 'terminal stress',⁶ in one set of following environments the relevant vowels occupy an allophonic range of realisations of relatively short duration (the 'short' variants in the 'short' environments), in

⁶ ^[6] See Wettstein (1942: 9–10, 16–17). Similar effects occur in many other Scots dialects, throughout the Central and Southern area at least. So far Wettstein's investigation remains unique.

Editor's note: Wettstein writes:

TERMINAL STRESS, i.e. an increased rhythmic or emphatic stress on final unaccented syllables unknown to R[eceived]S[tandard English] is most apparent at the end of breathgroups, where it may easily amount to a full stress or more and be coupled with the considerable reduction of a preceding accented syllable. (§ 60, pp. 16–17)

another a range of markedly longer duration (the 'long' variants in the ^[135] 'long' environments). These vowels have consequently been called (by Wettstein, 1942, and Zai, 1942) 'Vowels of Variable Quantity'. The long environments are: a following voiced fricative (/v/, /ð/, /z/, /ʒ/), /r/ or a morpheme-boundary, all of these either final or followed by a consonant constituting a second morpheme. Hiatus is also a long environment. Nearly all Scots dialects (and Scottish Standard English) agree in displaying fully long realisations of the affected vowels in these environments. (But there are a few dialects in which this is apparently true only for some of the environments: see below.) Some other environments which appear to offer long variants of some vowels only in some dialects only, namely /-rd/, /-g/, /-d/, and others, will be discussed in section 5. All other environments of end-stressed syllables, which, it should be noted, include following voiced stops, nasals and the lateral as well as voiceless stops, voiceless fricatives and the voiceless affricate, are short environments.

To exemplify for a single vowel phoneme regularly subject to the Rule in many dialects, the Rule prescribes the realisations:

[lif] *leaf*, [liθ] *Leith*, [liʃ] *leash*, [bitʃ] *beach*, [bit] *beat*, [bid] *bead*, [min] *mean*, [fil] *feel*, [fild] *field*, [bist] *beast*, [sist] *ceased*;

representing the short environments, and:

[li:v] leave, [bri:ð] breathe, [bri:ðd] breathed, [si:z] seize, [si:zd] seized, [di:r] dear,

deer, [spirr] spier 'ask' [spird] 'asked', and [di:] 'die', [si:] see, sea, [si:z] sees, seas;

long environments.

One of the long environments is a morpheme-boundary: consequently [Λ 'gri:d] *agreed*, where the vowel terminates a morpheme and the syllable closing consonant constitutes a new morpheme, and monomorphemic [grid] *greed*, do not rhyme; similarly, in 'dialect Scots', *dee'd* past tense 'died' [di:d] and *deed* adj. 'dead' [did] are not homophones, and *see's't* 'see (give) us (me) it', or *gie's't* 'gie (give) us (me) it', [si:st] or [gi:st] do not rhyme with *feast* or *beast* [fist, bist].

At present there is a dearth of instrumental measurements of SVLR vowel durations. Dieth (1932: 62–5) presents data only for /e/ (vowel 4) and /i/ (vowel 2) before /t/ in the end-stressed syllable situation (/i/ 0.14 sec., /e/ 0.17 and 0.12 sec.). Wettstein (1942) tells us only that long vowels (our 'long' variants) and diphthongs averaged 0.20 sec., half-long 0.14 sec. and short 0.08 sec. (the two last between them make up our 'short' group).

McClure (1977) is much the most informative of the three. His results show a clear gap between the range of durations in long environments and the range for short environments for vowels 2 /i/ and 6 /u/. His shortest 'long' /i/ (before z/ in the same morpheme) averaged 0.255 sec. in isolation, 0.21 sec. in his sentence; his longest 'short' /i/ (before /s/) lasted 0.145 sec. in isolation, 0.12 sec. in a sentence; in other environments the 'longs' of /i/ were still longer and the 'shorts' still shorter. The gap in durations between long and short ^[136] variants was still greater for /u/. There were smaller, but still convincing, gaps for his /e/ (vowel 4), /ɛ/ (vowel 16), /a/ (vowel 17), /ɔ/ (? vowel 12, ? vowel 18), /o/ (? vowel 5, ? vowel 18), /ae/ (vowel 1), and /ʌu/ (vowel 13), all of these displaying overall rather longer durations than /i/ and /u/ (up to 0.445 sec. for word-final /ae/, against 0.375 sec. for /u/ and 0.315 sec. for /i/). The only other vowels tested by McClure were 15 /I/ and 19 /ʌ/, both of which displayed the expected short durations throughout (0.105 sec. maximum for /I/, 0.155 sec. maximum for /ʌ/).

All of this, as far as it goes, strongly bears out the description of SVLR offered above, and lends further support to the view that the Scottish vowels have their own peculiar ways of

phonetic behaviour which, in respect of durations at least, differ from those of all other kinds of English.

The Scots vowels seem for many dialects to offer a wider range of durations than those of, say, RP: in Scots the shortest durations are shorter and the longest durations longer than those of at least some other English dialects. More importantly, however, other dialects of English appear to display vowel durations descending according to environment along a single gradual continuum (see Gimson, 1972: 94–5). In contrast to this, many Scots dialects are reported as displaying for most or all of the SVLR vowels a clear either-or split between fully long and fully short durations, e.g. the dialects reported by Watson (1923), and by the LSS for Barrhill (Ayrshire), Stoneykirk (Wigtownshire), and elsewhere. For these dialects at least, as well as for McClure's accent, a two-fold division, rather than a single continuum of durations, makes sense even at the phonetic level. And powerful phonological support for this analysis follows in the next section.

Both the 'longs' and the 'shorts' of any one SVLR vowel in most dialects or idiolects can be viewed as possessing their own allophonic ranges of durations and these two ranges do not normally overlap: in the relevant dialects, the initial vowel, of, say *sea-voyage* is normally of longer duration than that of (in descending order) *agrees, agreed, dear, please, leave* or *leaving*, but these display durations between 1½ and 2 times as long as those of *peace, greed, mean, feel* or *meet*, which display a similar durational range. It may be noted in passing that the allophonic range of this vowel's 'long' variant includes a longer duration for the environment /V#z/ as in *sees* than /Vz/as in *seize*, but the difference is very much smaller (0.045 sec. in McClure's accent) than that between /V#d/ as in *agreed* within the 'long' range and /Vd/ as in *greed* within the 'short' range (0.12 sec. in McClure's accent). This is a very different picture both in its general lay-out and in the positioning of individual items from the gradually descending continuum of durations of /i:/ realisations in other English dialects. The pictures for other Scots SVLR vowels and their respective cognate 'long' vowels in other English dialects are similar.

^[137] It is admittedly true that the Scots long environments are those which yield long realisations for English generally: followed by voiced fricatives, /r/ and word- or morpheme-boundary. We may indeed plausibly account for the emergence of the SVLR by assuming that a general tendency to shorten originally long vowels was effectively resisted only by these 'naturally long' environments when the Rule was set up (? in the fifteenth century). But in other environments, which favour long vowel durations in other dialects of English, Scots has for the most part carried the shortening through. So Scots displays short realisations before /d/ in the same morpheme, /1/, and nasals, whereas in most other dialects of English these environments favour quite long vowel durations for the so-called 'long' vowels, especially /d/. Clearly Scots does differ from other dialects of English in these phonetic tendencies, but the clinching arguments are of course the phonological ones.

The SVLR does not operate in quite this simple, clear-cut way for all Scots dialects (though I am not aware of any Scots dialect which does not display some effect of the tendencies expressed by the Rule). The monographs of Zai (1942) and, especially, Wettstein (1942: 6–7), and some of the LSS phonological books confirm for other dialects the tendency noted by McClure of the high vowels 2 and 6 to display markedly shorter durations (down to 0.09 sec. in McClure's accent) in SVLR short environments than do the former mid and low vowels, 4, 16, 17 and 18, or (at least in McClure's accent) the diphthongs, vowels 1 and 13 (in McClure's accent none of these is ever shorter than 0.15 sec. (for /ɔ/) and averaging much higher, 0.2 sec. or more). Commonly 2 and 6 are represented in these sources as possessing

fully short duration, either throughout the short environments or in most of them, whereas in the same dialects half-long durations are reported for vowels 4 (even when not merged with 8: see section 6) and 17 (even when not merged with 12: see section 6), 16 and 18, in most or all of the short environments (e.g. Kippen (Stirlingshire), Upper Cabrach (Banffshire), Pultneytown (Wick, Caithness). Even vowels 2 and 6, however, may appear as having half-long duration in some SVLR short environments in some dialects (e.g. Dieth, 1932; Zai, 1942; and Kippen and Upper Cabrach); which environments these are seem to vary widely and to encompass the entire possible gamut, with perhaps following /t/ as the least frequent. But vowel 7, where unmerged with other vowels, is a shining exception: it appears never to be reported as having other than a fully short realisation (whether as [ø], [y], [ë], [i], [i], etc.) in SVLR short environments; in this respect it resembles 15 and 19 (but in their case this is not of course confined to the short environments).

In LAS3 half-longs are not distinguished, so the published data do not show the following points, based on the survey questionnaire books. In most of these dialects one has merely to count all of these half-long realisations among the SVLR 'short' variants to leave SVLR intact as stated: that is, short and half-long durations count as 'shorts', fully long as 'longs'. ^[138] However, there are also cases like that of LSS's Skateraw (Kincardineshire). In this dialect the longest duration reported for any vowel in any environment is half-long. Vowels 16 and 17 (as well as 8 and 4: see section 6(ii)) are shown with half-long realisations not only in the regular long environments but also before following /d/, /1/ and /n/, which are thus in effect added to the SVLR long environments for these particular vowels for this particular dialect.

For similar reasons, Pultneytown (Wick), wholly excludes its vowels 4, 16, 17 and 18, realised half-long in short environments, from SVLR, since these (and other SVLR vowels) are realised only half-long before voiced fricatives also: the final position is the only one yielding fully long realisations in this dialect. Wölck (1965: 21–3, 38–9) reports for his Buchan dialect that vowels 2, 4, 12 (merged with 17), 5 (merged with 18) and 6 have very long ('sehr lang') realisations finally and long ('lang') realisations in the other SVLR long environments and also before /l/, /m/and /n/; all other environments he reports as yielding half-long, short or very short ('überkurz') realisations.⁷

Some other LSS books appear to report the converse kind of partial exception to SVLR: that in which SVLR vowels appear with short variants in long environments. Fowlis Wester is reported as displaying fully short realisations for vowels 2, 5, 6 and 7 finally and before /r/, though before voiced fricatives these are given with the regular long realisations. For Kirriemuir all vowels except 1, 2, 5, 8 (with 4) and 12 are shown as displaying short duration in long environments except finally, and vowel 7 is shown as short in the final position as well (as [ø]).

I stated above that the long environments consisted of certain specified voiced fricative consonants (including /r/) and hiatus or a morpheme-boundary (as it were, a zero consonant) following the vowel, or any of these followed by a consonant constituting a second morpheme (not of course applicable to hiatus). Accordingly, in such items as *grieved*, *pleased*, *spiered* (asked), and *agreed* we expect, as we have seen, the long realisation [ir]. This seems indeed to be what normally happens in all dialects which operate SVLR at all fully, most regularly for the high vowels, thus:

^{7 [8]} But the extreme regularity of the results reported by Wölck, as well as some other oddities in what he reports (e.g. his monophonemic vowel 1 in 'Standard-Schottisch', p. 38), raise doubts as to the reliability of some of his observations.

vowel 1: arrived, surprised, tied with [are]; priced, tide with [əi];

vowel 2: grieved, pleased, dee'd (died) with [i:]; reefed, leased, deed (dead) with [i];

vowel 6: *snooved* (glided), *boozed* and *allooed* (allowed) with [u:]; *roofed*, *hoosed* (with /s/, (housed)) and *alood* (aloud) with [u];

vowel 7: *moved*, *yaised* (used) and *dae it* (do it) with [ø:] or [e:]; *roofed*, *stood* and *boot* with [ø], [ï], or [1].

Some reporters, such as Dieth (1932: 63), apparently do not expect exceptions to this part of the Rule.

Other reporters do. And I have little doubt that many dialects, as a general ^[139] principle, and single individuals, as a personal trait, do either occasionally or regularly perform the SVLR-prescribed 'long' realisations above as half-longs or fully shorts (and indistinguishable from SVLR 'shorts'), for vowels which in the dialect in question otherwise regularly operate the Rule at the phonetic level. Though in cases like the above Wettstein (1942: §38) in general discounts 'shortening effect', he does observe some in the few items:

[ge(:)d] (went), [gid] (for [gi:d]) *gie'd* (gave) and [di(:)d] *dee'd* (died).

In my own speech the question whether or not I will display a contrast between

/vowel 4 + # + d/ (e.g. *played*)

and

/vowel 4 + d/ (e.g. plaid)

appears to depend on the degree of deliberation of my speech-style, and similarly with my vowel 5 (e.g. *rowed* and *road*). It may emerge that the Rule is least often breached in this respect by the Early Scots long high vowels, 1, 2, 6 and 7, which as we have seen in general show fewer abrogations of the Rule and three of which (2, 6 and 7) also display the shortest durations of all SVLR vowels in their short variants.

Perhaps rather greater consistency in the operation of SVLR is to be found when a consonant following an SVLR long environment introduces a new morpheme, in compounds such as *leave-taking*, *pease-brose*, *grease-paint* (with /z/) and *pea-stalks*, all of which everywhere have [i:] or its equivalent, as against *leaf-mould*, *grease-paint* (with /s/), and *peace-talks*, all of which everywhere have [i]. All these cases can perhaps be summed up, following Murray (1873: 97), by saying that the vowel-length of an inflected or compounded form 'follows' that of the 'primitive'⁸ (the uninflected or uncompounded form).

Except for vowel 1, where the falsity of any such claim is manifest, it is usually implied and sometimes specifically stated (e.g. by Zai, 1942: 15, and, with qualification, by McClure, 1977: 11) that the quality of the SVLR vowels does not vary with environment as the quantity does. In rough terms this is probably true, and, except for vowel 7, no objective data to the contrary is currently available in published form (but in their impressionistic transcriptions a few of the LSS phonological books display qualitative variations for SVLR vowels e.g. $\ddot{u} \sim u(:)$ in Coupar Angus).

⁸ Editor's note: misquoted in the original as 'principal'.

If we may, in default of other information, take my own speech as typical, I find my 'long' variants of individual vowels to be tenser, therefore more peripheral and in certain cases (/i/ and /u/ certainly) slightly closer than my 'short' variants of the same vowels. In my idiolect (and some other dialects certainly behave likewise: see e.g. Dieth, 1932: 3), my 'short' variant of vowel 17 /a/ is noticeably fronter [a], than my 'long' variant [a:] . Similarly my 'long' variants of the diphthongs, vowels 10, 13 and 14, have longer, tenser and more peripheral second elements than their 'short' variants. Conversely, the 'short' variant of vowel 1 in my and in nearly all other dialects, [əi], [Ai], etc. (which is also the short of vowel 10: see below), has closer and tenser first and second elements and a more peripheral second element than the 'long' variant of ^[140] vowel 1 [a'e], [a'e], [a'], etc. (some Northern Mainland dialects are perhaps exceptions to this).

These qualitative peculiarities of the 'long' and the 'short' variants of a given vowel seem furthermore to be shared by all the allophones of each variant: so that, e.g., the realisations of /i/ before, say, /1/, /ld/, /t/, /st/ all share distinctive qualitative features setting them apart from the 'long' realisations of the same vowel, before, say, /r/, /v/, /zd/ or a morpheme boundary. They are, apparently, constant features of each of the two variants of each vowel. Hence, even in sentence-contexts in which the length contrast seems to be largely neutralised by sandhi factors, the qualitative contrast between 'long' and 'short' variants may still be audible (and intuitionally present to me): between, say, the two initial /i/'s of, respectively, Steve'll be coming and Jean'll be coming. Similarly I have noticeable qualitative, as well as, in my case, quantitative, differences between the initial vowels of *leaving* and *leafing*, or of *louvre* and *loofah*. It may well be that the vowels of short duration reported for many dialects in non-final stressed syllables which in final syllables would expect the 'long' variants, in items such as faither /feðir/, razor /rezir/, mazer, are indeed quantitatively short but share the qualitative features of the final syllable 'long' variants, so that they remain phonologically 'longs' even when phonetically short: i.e. the quantities of the stressed vowels in razor and racer may differ little, both being of comparatively short duration, but in quality the first of these agrees with the SVLR 'long' of /e/, the second with the SVLR 'short' of the same phoneme. Such is indeed the case with these and similar items in my own idiolect. But this does not appear to happen in my own speech in short realisations of [gid] for [gid] gie'd 'gave' or [ged] for [ge:d] gae'd 'went'; in these cases I have evidently selected the short variants of their respective vowels rather than shortened realisations of the long variants.

Naturally there is a good deal of variation between idiolects and dialects in the precise durations and qualities presented by each vowel in each environment, as even the available data already show. But the dual arrangement of vowel realisations specified by the SVLR does certainly operate in whole or part in all dialects, even at the phonetic level we have been considering. The Rule has also had important effects at the phonemic level of Scots phonology, some of these already well recognised, others hitherto little regarded.

4 Phonemics

Some phonological manifestations of SVLR at a phonemic level have already been mentioned (for /i/, see above, and similar phenomena, e.g. [bru:d] *brewed* versus [brud] *brood*, have often been noted for other vowel phonemes). ^[141] Others, such as contrasts between such pairs as *feline* [i:], and *feeling* [i], are mentioned in section 5.

4.1 Vowels before /ð/ and /d/ in Shetland

Some seeming vowel-length irregularities with similar contrastive effects occur in some Shetland dialects. In these dialects SVLR vowels before /d/ appear with both long and short realisations: as, [hidd] heed, [nidd] need, etc., but [midd] meethe or meed 'landmark', [lidd] *leethe* or *leed* 'will to work', and [gødd] good, [flødd] flood, but [rødd] rööd 'drizzle, chatter', [bø:d] booth. These results, which must have been anticipated by J. C. Catford and his collaborators in compiling the LSS phonological questionnaire, are easily explained as consequences of the SVLR. The dialect just cited, which is typical of others, was that of Fetlar in the north-east of Shetland. That of Burra, in the south-west, gives similar results. The dialect of Dunrossness in the extreme south has, however, [hid] heed, [nid] need but [mi:ð] meethe and [li:ð] leethe, [göd] good and [flöd] flood, but [bö:ð] rood and [bö:ð] booth. The items with the long realisations all derive from earlier forms with the voiced fricative $\partial/$ as the syllable-closing consonant, i.e. one of the SVLR long environments. It must follow that the Rule was already in operation before the change of ∂/d to [d] and its merging with d/dhad taken place in Shetland. A statement by George Low (Marwick, 1923–24) suggests that the parallel change of θ to /t/ had taken place in Orkney by 1773, and there is evidence for Shetland by 1836 (anon., 1836) (both cited in SND s.v. T. 9). The sixteenth and seventeenth century Shetland records appear to show no signs of a change from ∂/d to d/d. But no doubt the SVLR was long established before c. 1700 when the merging⁹ of ∂ with d presumably took place (as these indications suggest).

[That this had taken place before the end of the 17c seems probable from John Brand's (1701: 69–70) statement about the parallel case of [θ] and [t]: "[Shetlanders] often use to leave out the letter H in their Pronunciation, as if it did not belong in the Word, so *Three* they pronounce as *Tree*, *Thou* as *Tou* or *Tu* &C." OSc spelling-evidence of the Shetland closure of [δ] to [d], merging under /d/ is mostly lacking: see e.g. *Methe* n. and v., and *Roth* n. in DOST. There are nevertheless some spellings of *Outhall* n. 'udal, land tenure', q.v. in DOST (ON $\delta \delta al$), which appear to provide a date for Shetland / δ / > /d/. In its earliest occurrences this word is spelled <-th-> in keeping with its etymology, but spellings with <-d->, at first apparently less frequent, are on record from 1567 <owdell>. It follows that SVLR was established in Shetland before the completion of the change from [δ] > [d], i.e. before the late 16c.]¹⁰

The occurrence of these long vowel realisations before /d/ in Fetlar and Burra is predictable only if one knows the etymologies of the words in question. Consequently, according to strict structural phonemics, these dialects display certain additional long vowel phonemes which occur only before /d/.

4.2 Some phonemic splits and mergers: vowels 1, 8a and 10

The vowels we have considered so far display striking differences of quantity between the different phonetic, morphemic and etymological environments, all of these predictable from the SVLR itself, and quite slight differences of quality. Conversely, the item we are about to

⁹ ^[9] More accurately, partial merging, since e.g. *breathe*, *bathe* and *smooth* appear as [bre:ð], [be:ð] and [smu:ð] or (Dunrossness) [smœ: θ] (the last also retaining a long realisation as a relic of earlier /ð/ in this word) in all three of the Shetland dialects cited.

¹⁰ Editor's note: this paragraph inserted from *The Older Scots Vowels* (†Aitken, 2002: 130).

consider (vowel 1) displays in nearly all dialects considerable differences in quality between its 'long' and its 'short' variants. In many dialects of Central Scotland and of other areas, the incidences of 'longs' and 'shorts' of this vowel are in the main regularly predictable by the SVLR. But other dialects display important general and/or occasional particular exceptions to this: see below. In addition, however, the merger of one set of realisations, the 'short' (vowel 1s), with two other historical phonemes, 8a and 10, has brought about a phonemic, not merely an allophonic, ^[142] division of the lexical inventory of the historical phoneme of vowel 1. More explicitly, vowel 1s, realised as [əi], [Λ i] or the like, has in many dialects merged with vowel 10; also vowel 8a happens to resemble 1s and 10 phonetically, and so may be regarded, systemically, as the merged phoneme's word- or morpheme-final representative (by definition 1s lacks a morpheme-final representative, since SVLR assigns this environment to 1l, and 10 happens, in many dialects, to lack this also¹¹).

Thus vowel 1, which derives from ME and Early Scots $\langle i \rangle$ and corresponds regularly to (non-Scottish) modern English /ai/, in Central Scots and other dialects realises:

[are] or the like in the long environments, as five, rise, fire, dry and writhe [rareð];

 $[\exists i]$ or the like in the short environments, as *Fife*, *rice*, *bite*, *side*, *file*, *wild*, and *writhe* $[r \exists i \theta]$ (an optional variant of $[r a \exists \theta]$).

It also displays the expected contrasts between tied [tared] (where the syllable closing /d/ constitutes a second morpheme) and monomorphemic tide [təid], and between *pylon* [are] and *piling* [əi] (on which see section 5).

In addition, in most (? all) dialects vowel 10 and 1s have now merged (as [əi] or the like). So their joint inventories now include both *quoit* and *kite*, *join* and *line*, *point* and *pint*, *oil* and *isle*, but in many dialects *poison* ['pəizn] is in contrast with *rising* ['rarezn, 'rarezn]. Further, word- and morpheme-final [əi] (or, more precisely, [əir]: see below) also occurs, arising from vowel 8a, in e.g. *ay* [əi] 'ever', *pay* [pəi], etc.; and *pay* [pəi] and [pare] *pie* and [məi] *May* and [mare] *my*, are in contrast. In short, vowels 1, 8a end 10 have now between them yielded two phonemes, /are/ (from 1l) and /əi/ (from 1s, 8a and 10), the latter incidentally regularly operating the SVLR, [əir] in *poison*, *pay*, [əi] in *quoit*, *kite* (both [kəit]), *point*, *pint* (both [pəint]), though this seems not to have been previously noticed. So Scots now presents two phonemes corresponding to one phoneme /aɪ/ of other varieties of English, albeit one of these two Scots phonemes /a'e/ is largely (not entirely: see below) restricted in its occurrences to SVLR long environments, though the other /əi/ is in principle at least environmentally unrestricted.

It is presumably this well-defined two-phoneme situation which has liberated the selectional choice for vowel 1 variants and given rise to irregular occurrences of one or the other of 1*l* or 1*s* in environments normally prohibited by the SVLR. Some of these are explicable on obvious analogies: thus [wəivz] *wives* beside regular [wəifs] *wifes*, similarly [ləivz] *lives*, [nəivz] *knives*. The SVLR regular [warevz], [larevz], [narevz], would be regarded by many Scottish speakers as 'English', i.e. foreign to native Scots usage. Dual optional pronunciations with [are] and [əi] are found for:

oblige [Λ'bla'eʤ, Λ'bləiʤ], *tithe* n. and v. [ta'eθ, təiθ],

¹¹ Editor's note: possibly the only candidate for vowel 10 morpheme-finally is *joy* (when not altered to *jo*). Burns rhymes *joy* as / ∂i / (with *agley*) in 'To a Mouse', but elsewhere, possibly as an anglicised form of the time, as /a'e/. See Macafee (2006a: 94).

scythe [sa'eθ, səiθ], writhe [ra'eθ, rəiθ], lithe (shelter) [la'eθ, ləiθ], Kilsyth [kıl'sa'eθ, kıl'səiθ], Forsyth [for'sa'eθ, for'səiθ], precise [prı'sa'es, prı'səis], concise [kʌn'sa'es, kʌn'səis].

In some of these cases there are perhaps tendencies for ^[143] the different social classes and regions to favour different options: the 'long' variants are perhaps favoured by middle-class speakers of Scottish Standard English, the 'shorts' by working-class speakers of dialectal Scots.

Individual local dialects also throw up sporadic selectional irregularities like the following:

Barrhill (Ayrshire) has, according to LSS, [rəiz] *rise* beside regular [saiz] *size*, [faiv] *five*, etc.;

Stoneykirk (Wigtownshire) similarly has [drëiv] drive beside [faiv] five.

But in the dialects of Central Scotland (and also of Caithness and the Northern Isles?) such exceptions are perhaps sporadic and not subject to any one general principle. If we ignore them we can claim once more an instance of the habit Scots has of dividing the lexical inventories of its historical vowel phonemes into two compartments by its own special criteria prescribed by SVLR.

The dialects so far considered, which include e.g. those of Central Scotland, of Shetland, of at least some Caithness dialects, and Educated Scottish Standard English, display the most nearly regular operation of SVLR on vowel 1, with several exceptions for single items, as just mentioned. Other dialects manifest what we may regard as less complete operations of the Rule on this vowel. An intermediate group, including many or all North-Eastern dialects and perhaps some from the extreme South-West, operate the Rule as described, except that before /r/ it is the 'short' variant not the expected 'long' which occurs (usually with an epenthetic vowel between vowel 1 and /r/): so *tire*, *fire*, *wire* etc. appear with [$i^{3}r$] or the like (not [$are^{(a)}r$] as in Central Scots). A perhaps more peripheral group is claimed by Murray (1873), Wettstein (1942), and Zai (1942) as confining the 'long' of vowel 1 to the word- and morpheme-final environment (and in hiatus or former hiatus, as ['trarekl], ['varelët], etc.) and "to render R[eceived] S[tandard] *ai*" (Wettstein, 1942: 42), "to render the R[eceived] S[tandard] *ai*" (Zai, 1942: 86); thus, according to Zai, Morebattle has:

[bare], [skare], etc.;

but

[ëiər] in *shire*, *byre*, *spire* etc., [dëiv] *dive*, [hëiv] *hive*, [rëiv] *rive*, [əd'vëiz] *advise*, [gëiz] *guise*, etc.;

but also "not due to a native development" (Zai, 1942: 86):

[fa·ev] five, ['a·ev1] ivy, [ri¹kwajër] require, [spajër] (more common) beside [spëiər] (rare) *spire*, [sarez] *size*, [tajër] 'rubber-' *tire* (cf. [tëiər] v. *to tire*), [frajër] *friar*, [,siv1'larez] *civilise*

(the two last formerly, no doubt, as Murray (1873: 146–7) has them for a neighbouring dialect, [frir] and [si:vɪ'li:z]).

This looks like a dialect 'representation' of three stages of an ongoing sound-change (in this case the conversion of several of the allophones of the long variant of vowel 1 successively from an [ei] or [ɛi] to an [ae] or [ɑe] realisation). The most advanced stage of the sound-change is that found in Central Scotland (which thus, presumably, is the area in which it originated and from which it successively spread), and the most conservative (where the sound-change has progressed much less far through the lexicon) that shown by the dialects described by Murray, Wettstein and Zai. Whatever the truth of ^[144] this, for our purposes we have to note that the environmental limits of the sound change normally coincide with those set by SVLR.

Some dialects (? chiefly or only those presenting a less complete operation of SVLR on vowel 1) appear also to display a still higher incidence of irregularity (or a lower degree of predictability of the selection of 1l versus 1s) than the Central Scots and other dialects earlier considered. That of Earlston (Berwickshire) has:

1s [ϵ i] in the regular SVLR short environments, as in *bite*, *bide* etc., also before /r/ in *tire* etc.;

1l [be] in ay 'yes', fry, kye, trial, and in five and size;

but, irregularly:

1s in drive and rise.

The behaviour of the Kirriemuir dialect is almost the same, except that it has its 1s in *size* and *rise* as well as before /r/and in the regular 'short' environments. The dialect of Upper Cabrach has:

1s [ϵ i] in the regular 'short' environments, *bite*, *bide* and the rest, and before /r/, as *tire*, *fire* etc.

It also displays (suppressed in LAS3):

a lengthened allophone of its 'short' [ɛ'i] in fry and kye, size and rise;

beside its regular 'long' [a'e] in whey, ay 'yes' and trial, and in five and drive.

It is worth remarking that the exceptions to the neat operation of SVLR offered by these (more or less conservative) regional dialects (compare also those mentioned for Barrhill and Stoneykirk above), all consist of incidences of 1s, [əi] or the like, where strictly the Rule 'expects' 1l, [are] or the like, but not the converse, (incidences of 1l where the Rule 'expects' 1s). In these cases there is an 'unlicensed' shortening: the shortening has gone further than SVLR predicts. Exceptions of the latter sort (1l for 1s: see above) can all perhaps be explained away individually as due to analogies of one sort or another or to middle-class imitations of non-Scottish Standard English usage.

4.3 Phonemic splits and mergers: vowels 7, 4 and 15

A vowel which shows a neat division of its lexical inventory into two distinct compartments still more strictly along a line predicted by SVLR is vowel 7 in most Central and Southern Scots dialects.

I shall not rehearse here the arguments for believing that from some time in the later Middle Ages (? c. 1300) down to the seventeenth century, this vowel phoneme, a principal source of which was OE, ON \bar{o} , had as its principal allophone nearly everywhere in Scotland a mid to high front rounded realisation. (Before that it had been, as it remains in English Midland and Southern dialects, a *back* rounded vowel.) Something like its former (Older Scots) rounded realisation, often symbolised by $[\emptyset]$, sometimes [y], persists in some of the most archaic of Scottish dialects, such as Shetland, Orkney, some Angus and Perthshire dialects and some Southern Scots dialects.

In these dialects the SVLR invariably produces its usual durational effects. As we saw above, vowel 7 is the one SVLR vowel which is never reported as having other than a fully short realisation in any of the SVLR short environments. Some reporters also indicate for vowel 7 a qualitative distinction between the 'long' and the 'short' variants by choosing different symbols for each, e.g.:

Watson: [ø] long environments (1923: §§47, 57), [y] short environments (§48);

Zai: [œ:] long environments (1942: §8), [Θ] short environments (§10);

and similarly in various LSS phonological books. In these cases the distinction between the two symbols commonly follows without exception (for the environments so far considered) the regular SVLR two-fold environmental division. (Similarly in those LSS books which I have seen which display more than two symbols these can be arranged into the two SVLR groups without overlap between the two.)

In these dialects vowel 7 remains as a separate item in the phoneme system unmerged with other phonemes. Other dialects have merged vowel 7 with other historical vowels, mostly by way of an unrounding sound-charge, most notably with vowel 2 /i/ in the North-East and North.¹² The Berwickshire dialect described by Wettstein (1942) he represents as having an unrounded but in this case unmerged [ë(:)] in all environments.¹³ And some Northern dialects, e.g. Pultneytown, appear to have merged 7 with 6 as [Y] (i.e. with retained liprounding).¹⁴

There is, however, a large group of dialects where the results are more complex. These are the Central Scots dialects which, for this feature, may be regarded as extending as far as southern Perthshire in the north and taking in most of Central and South Scotland in the south. In these, the unrounding process has split the historical vowel 7's lexical inventory into two quite separate sets. In one set of words, those with long environments, the unrounding has yielded an [e:] realisation for 7l, and this has mostly merged with vowel 4. In another set, those with short environments, some dialects have some phonemically separate realisation for 7s, representable as, with some lip-rounding persisting, [ø], or, without rounding, [ï] or [ë] (other symbols appear in LSS books). But all dialects of the centre of the specified region –

¹² Editor's note: also Burnmouth (Berwickshire), location 23.2, in LAS3; and for a mapping of some lexical items at locations in the western Borders and the South-West see Macafee (2006b: Map 2).

¹³ Editor's note: cf. Auchencrow (Berwickshire), location 23.1, in LAS3.

¹⁴ Editor's note: shown as [y] in LAS3.

the Central belt and areas to its north and south – have completed the process for the latter set of words, producing realisations for 7s which have merged entirely with vowel 15 (the specific local realisations, that is, of /I/).

The process of unrounding and (divergent) merging which vowel 7 has undergone in these areas and is undergoing in the areas just beyond them is evidently an on-going sound-change. This began (prior to 1550: see below) in some part of Central Scotland and has been spreading outwards since then. In the area of origin (in Central Scotland itself) the sound-change is now complete. Beyond this area we may expect bands of territory in which the sound-change is at the intermediate stage – with 7*l* merged with 4, but 7*s* unmerged. Still further out in Perthshire and Angus in the north, and Berwickshire, Roxburghshire and east Dumfriesshire in the south, lie the dialects in which some elderly ^[146] people preserve vowel 7 wholly unmerged, the same state of affairs as obtained over the whole of Eastern, Central and Southern Scotland down to the mid sixteenth century, when the unrounding and merging of vowel 7 began.

What is important for us here is the fact that the separation of the lexical inventory of vowel 7 between

(1) on the one hand, vowel 4 (as [e:]), and

(2) on the other, [ø], [i] or vowel 15,

follows exactly the line predicted by the SVLR: result (1) obtains for all the long environments, (2) for all the short environments. To exemplify from those vowel 7 items still in current use, we have:

in the long environments, merging, as [e:], with vowel 4, but originally vowel 7, do, shoe, she, too, cruive (pigsty), use v., ruize v. (boast), floor, moor, poor, sure;

in the short environments, merging (ultimately), as /I/, with vowel 15, *luif* (palm of hand), *roof, sooth, tooth, truth, use* n., *goose, boot, cuit* (ankle), *fruit, suit, blood, food, flood, hood, rood, stood, loom* (tool), *done, moon, shoon, soon, spoon, fool, school, stool tool.*

So *moor* (vowel 7) and *mare* (more) (vowel 4) are homophones in Central Scots dialects, and, where the sound-change has run its full course, *boot* (vowel 7) is similarly homophonous with *bit* (vowel 15); so with:

too and tae (toe), ruize and raise, floor and flare, etc.; and suit and sit, hood and hid, loom and limb, spoon and spin, fool and fill, school and skill.

Whereas exceptions to an SVLR-predicted distribution proved quite common for vowel 1, for this vowel they are rare. (Quite unusually, Dunrossness, Shetland, has 7s [\ddot{o}] for 'expected' 7*l* [\ddot{o} :] in *move*, *prove*, *love*.) Vowel 7 has carried out its split with great consistency, whereas vowel 1 has not. SVLR must have been well and clearly established phonetically before the unrounding and merging of vowel 7 began.

It must be evident that we have in the three sets of phenomena just described powerful verifications of the antiquity of the Rule and the regularity and predictability of its operation on some vowels at least. It has clearly exerted a highly persistent and powerful effect on the habits of pronouncing vowels 1 and 7 (and, as in the Shetland phenomenon (section 4(i) above), vowel 2). It seems fair to extrapolate from there to the other SVLR-subject vowels and postulate a long-standing effect on Scottish habits of pronouncing these vowels.

4.4 Irregular 'longs ' of /i/

Some dialects of the South, South-West and elsewhere possess a small handful of words in which a vowel [i:], closely resembling the long variant of vowel 2 in both quality and quantity, occurs before /k/ and /p/, regular SVLR short environments. Since in the same dialects regular vowel 2 'short' (i.e. with fully short realisation) occurs in the identical environment, we must reckon this anomalous long vowel in short environment an additional phoneme of excessively small lexical incidence. Its existence was first noticed by Murray (1873: 97–8, 104) in *keek*, *sweep*, and *cheep* (i.e. in Murray's Roxburghshire ^[147] dialect) and more recently by LSS investigators e.g. in Barrhill and elsewhere in Ayrshire in *creak* and *creep*, and in Skateraw (Kincardineshire) in *creep* and *wheep* 'whistle'. So all these dialects contrast e.g.:

[kri:k] *creak* with regular [bik] *beak*, [rik] *reek*;

and [kri:p] *creep* with regular [$\int ip$] *sheep*, [stip] *steep*.

Abercrombie (1979: 77; 1991), as well as *creak*, has also noticed *leak* (long vowel) in contrast with *leek* (short vowel); but the other apparent instances of this phenomenon mentioned by Abercrombie most likely have a different explanation: see section 6 below. When we inspect the meanings of the words in which this anomalous long /i:/ phoneme occurs we may wish to attribute its origin to sound symbolism.

5. Other environments

So far I have confined my discussion to a limited number of environments, viz. end-stressed syllables closed by certain consonants and consonant sequences or vowel-final. The behaviour of the SVLR vowels in other environments is much more complexly variable through the dialects. A few general remarks and suggestions are all that can be ventured on this topic.

In monomorphemic end-stressed syllables we may add to the SVLR long environments for certain vowels in certain dialects these:

following /rd/, /r/ + any voiced consonant, /r/ + any consonant, /g/, /cg/ and, more rarely, some other environments (see above).

Thus fully long realisations do occur in this or that locality in such items as:

beard, weird, smairg (besmear), bairn, airm (arm), lairge (large), fierce, pairt, lairch, liege, obleege (oblige), league, stravaig, bog, brogue.

Other dialects again have the same or equivalent items with half or no length. In vowel 7 items (where the 'long'-'short' distinction is most clearly marked) both 'longs' and 'shorts' are said to occur in:

buird (table), *fuird* (ford): SND [børd], [førd], [ferd], but Zai (1942: §130(3)) (short) [børd], [førd];

but all dialects appear to concur in 'shorts' in:

hern (heron) [hørn] etc.;

and in *judge*: SND [&ø&], [&y&], [&jk], and Zai (1942: §170) and Wettstein (1942: 71) agree).

The vowel 1 item *oblige* swithers, sometimes in the same idiolect, between $[\Lambda' bla'edy]$ and $[\Lambda' bla'edy]$.

In stressed penultimate syllables, bimorphemic (inflected or derivational) items seem to follow Murray's rule that the vowel-length follows the 'primitive' (the uninflected or underived stem), though with some slight shortening of the 'longs' in many dialects, so:

useful has the 'short' in ['jusful] or ['jïsfɪ];

and using, user the 'long' in ['ju:zɪŋ, -ɪr], or ['je:zɪŋ, -ɪr];

and:

leafy, like *leaf*, has [i];

leaving, like leave, has [i:].

The picture with monomorphemic items displays much more variation. Hiatical items seem regularly or nearly so to realise 'longs' with partial shortening, as in *idea*, *real*, *bouat* (hand-lantern), and (with [a'e]) *diet*. Other disyllabic items often behave like monosyllables, i.e. yielding 'longs' (but often with some shortening) before voiced fricatives etc., but fully 'shorts' elsewhere.

^[148] So 'longs' occur in:

evil, deevil (devil), hazel in some dialects, faither in some dialects, easy, frozen, boozy, posy in some dialects, ['li:ʒʌr] leisure, weasel, ['pu:ʒŋ] poison, ['je:zwʌl] usual, ['mø:zɪk] or ['me:zɪk] music, rival, vizor (both [a·e]);

and evasion, delusion, measure (clearly contrasting with 'shorts' in nation, dilution, mesher);

yet 'shorts' occur in:

faither in some dialects,

posy in some dialects;

and other, apparently potential 'longs', such as:

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leegend,
dover, (to nap or doze) (also rover and drover in some dialects),
roset,
stovies (a culinary dish),
shoother ['ʃuðɪr] (shoulder),
blether (chatter),
cairy (carry);
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and in Southern Scots with vowel 7s in:

confusion (Zai: §370) [kən¹fəʒn]; *cousin* (Zai: §130 (9)) [¹kəzn], (Wettstein: §34) [¹këzn].

Some items, like:

faither, draigon (a kite), draigle teeger (tiger), legal,

may show both 'long' and 'short' options in the same dialect or idiolect.

In 'short' environments many items regularly and universally present 'short' variants:

metre, needle, femur, easter, cater, fatal, paper, leebel (libel), leebrel (Liberal), sidle, viper, (with [əi]), stupid with vowel 7 [stïpɪt], towmont 'twelve-month', gowden 'golden'.

These short realisations closely resemble those found in such bimorphemes as:

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meeting, needing, feasting, later, etc.
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But in addition there are a few items of apparently similar structure which in some dialects at least select long variants:

feline with [i:] (compare *feeling* with [i]), *feeble* (compare *leebel*), and *halo* ['he:lo:] (compare *paling* with [e]);

and a considerable number of vowel 1 items having [a'e] either invariably, or optionally with [əi]:

fibre, *lido* (compare *sidle* with invariable [əi]), *pilot*, *pylon* (compare *piling* or *wily* with [əi]), the former hiatus items ['travek]], ['vavelıt];

and those items which commonly offer, often within single idiolects, two alternative selections in [are] and [əi] respectively:

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sybo or sybie (spring onion),
cycle,
formica (compare hiking with [əi]),
spider.
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The irregularly long realisations in *feline* and *halo* resemble in quantity and quality regular morpheme-final 'long' realisations in, say, *tree-line* and *hay-loft*, and the irregular vowel 1*l* realisations just cited could be similarly compared with those in, say, *dye-stuff*, *dye-cloth*. I have called these irregular longs 'quasi-morpheme-final'. On the other hand, the vowel in my pronunciation of *feeble* resembles that of *fever* rather than the (longer) vowel of *fee-paying*. Whatever the explanation of this phenomenon it seems circular to claim it, as has been done, as a *consequence* of syllable-division. And Abercrombie's claim (1979: 82; 1991) that disyllabic words such as *table* have a short first and a long second syllable is true only if the first syllable contains an SVLR short; in cases having SVLR long variants like *feline*, or *pylon*, or *sybie* or *sybo* or *cycle* when these last have [are], the reverse is true.

I can offer no clear picture of principles of selection of 'longs' or 'shorts' in stressed antepenultimate syllables, except that hiatus normally yields 'longs', as in that word itself ['hietAs] or ['hareetAs]; so with *realise*, *vehement*, *violate*, *violin*, *dialogue*.

In other environments in antepenultimates no clear ^[149] picture emerges from the data I have noted. 'Longs' occur ('regularly') in:

Zai's ['kœ:riəs] (vowel 7) (1942: §216),

and Murray's seevileese 'civilise' (1873: 146),

Wettstein's povereese [po:vəri:z] 'impoverish' (1942: §48),

as well as ('irregularly': ? quasi-morpheme-finally)¹⁵ in Scottish Standard English (vowel 1) *eiderdown* [ave].

'Shorts' are recorded for:

vaigabun, daintelion, skaileton and solenoid.

Dual forms, 'long' and 'short' optional, are known in:

favourite, and (vowel 1) bicycle, idolise.

In unstressed syllables without full vowel reduction to [I] or $[\Lambda]$, conformity to SVLR appears to occur with vowels 1 and 6 (in /ju/, replacing 14). So:

Scots ['dulare] July (with first syllable stress), *memorise*, *realise*, *realisation* all yield [are] in some dialects,

but:

fratricide, contrite and fertile all have [əi];

equally:

value, leisure, nature all have in some Scots accents [u:];

but:

attitude, spicule, refuge [u];

¹⁵ Editor's note: at this point, I have deleted a reference to *eeditor* with [i:] in Watson: in fact Watson lists *eediter* with a short vowel (1923: §38).

the suffix *-eese* (Standard *-ise*) as far as reported seems to yield [-i:z]; other vowels, such as /o/ and /e/, may offer similar results.

6 The non-high vowels

The greatest regularity is found with the high vowels, less so with the non-highs. All vowels opt out in a few dialects; the non-highs more generally. As we noticed earlier in passing, two vowels opt out entirely in all dialects and accents from SVLR, by realising only short durations in all the environments in which they occur. And they do so whatever the precise local quality of their realisation. These are vowels 15 and 19. They are the only monophthongs of roughly uniform duration throughout their regional and phonetic environmental variables.

Another item in the system which appears to maintain a uniform duration is vowel 14, where, as in Southern Scots dialects, this persists as a falling diphthong [iu]. The phonetic incidence of this item is all but confined to final position (the converse of 15 and 19 which never occur in this position), in which position it is realised, according to Zai (1942: §162), [iu]. So *feu* and *few* are [fiu], *feud* is (presumably) [fiud] and so, contrary to normal SVLR practice, is (presumably) *feued* past tense. Even in those dialects in which it survives, this diphthong is being superseded by the otherwise nearly universal 'rising diphthong' /ju/, which commonly behaves as vowel 6, a normal SVLR vowel, i.e. with [ju:] in long environments, [ju] in short.

I am doubtful whether to regard vowel 9 as a potential SVLR vowel. In those dialects with which I am familiar it shows no clear SVLR distinction between 'longs' and 'shorts', and *enjoyed* and *Boyd* are a perfect rhyme. This fairly uniform realisation is however of distinctly long duration, so it should perhaps be classed with the opting out vowels now to be discussed. Whereas vowels 15 and 19 opt out of the SVLR by maintaining short duration in all possible environments, the items now to be considered achieve the same result by means of fully long duration in all environments, SVLR long and short both.

^[150] 6.1 vowel 12 (and vowel 17)

The most universal of these is vowel 12. In most or all dialects it appears that this favours long realisations in all environments in final stressed syllables, though shortening is reported (e.g. by Dieth, 1932: 64–5, and Wettstein, 1942: 8) in non-final stressed syllables. In many dialects this results in contrasts in short environments with vowel 17. So in Zai's (1942) Morebattle, [sart] *saut* contrasts in this way with [sat] *sat*, and [fars] *fause* with [las] *lass*. The dialect (? vaguely North-Eastern) in the minds of Grant and Dixon (1921: 52–3, 55) is evidently of this sort also:

vowel 12 in [ka:k] *chalk*, [fa:s] *fause*, [ha:s] *hause* (neck), [sa:x] *sauch* (willow), ['ta:p1] *taupie* (silly person);

and vowel 17 in [las] *lass*, [0ak] *thatch*, and ['nap1] *nappy* (ale).

This is evidently much how the Aberdeenshire and Roxburghshire dialects described respectively by Dieth (1932: 29–34) and Watson (1923) behave.

The dialects we have just instanced appear to keep 12 and 17 distinct in all or almost all the SVLR short environments, but merge them under a long realisation in the long environments, e.g. in Dieth's (1932) dialect [fa:r] is both *faur* (where) and *far*. Conversely,

Wettstein (1942: §32) describes the two items¹⁶ as fully merged in the Berwickshire dialect he describes, maintaining 'half' to 'full' length in all environments. Other dialects have them unmerged in some of the SVLR short environments and merged under the long realisation in others of the short and all of the long environments. In Barrhill (Ayrshire), according to LSS, they are merged, with long realisation:

finally, so both *lah* and *law* are [la:];

before /r/, so *war* and *waur* are [wa:r];

before voiceless as well as voiced fricatives, e.g. [gra:s] grass, [da:ft] daft, [spla:ʃ] splash;

both labial stops, e.g. [stra:p] strap, [dra:b] drab;

nasals, e.g. [ha:m] ham;

and /l/, e.g. [pa:l] pal;

but not before /t/, /d/ or /k/, so:

fault is [fa:t] but *fat* [fat], *fraud* is [fra:d] but *mad* [mad], *talk* is [ta:k] but *take* is [tak].

Kirriemuir (LSS) shows very similar results. Zai appears to report his Morebattle as keeping 12 and 17 distinct as respectively [α :] and [α] before /t/, /p/, /tʃ/, /ʃ/, /s/, /st/, but merging in all other environments, including before /k/. Perhaps other permutations of the possible results are to be found. But in all these cases of merger the result is a vowel of long or half-long duration, i.e. vowel 17 merges with invariably long 12, not conversely. All of those dialects, that is, as well as many others, agree in having long realisations throughout for vowel 12, whether or not 17 is merged with it.

This appears also to be true for many of those Central Scots and nearby dialects in which the reflex of 12 is a vowel with lip-rounding having a principal allophone of $[\mathfrak{I}:]$ or $[\mathfrak{D}:]$ rather than $[\mathfrak{a}:]$ variety. In these dialects this too seems to maintain the long realisation through most or all environments. So *salt* is [so:t] and *false* [fo:s]. In my own (Central Scots) accent of Scottish Standard English, I have:

a vowel realised as [5:] or [5'] as my vowel 12, in ^[151] e.g. *law*, *laws*, *cause*, *sauce*, *sprawl*, *doll*, *ball*, *bald*, *fraud*, *brought*;

as well as a vowel realised as [p] in e.g. *loss*, *cot*, *cod*, no doubt originally from Southern English;

and an [0] representing a merger of 5 and 18;

and an $[a \sim a]$ representing 17 /a/.

There are, however, some other dialects of this region, such as Kippen (Stirlingshire) (LSS), which appear to operate SVLR on their 12 /ɔ/. Kippen contrasts its 12 /ɔ/, with SVLR, with both 17 /a/ and 18 /o/ though, as happens widely in present-day Scots dialects, the picture is somewhat confused by the selection of 12 /ɔ/ where historically 18 /o/ is expected, e.g. in [pɔt] for [pot] *pot*, [bɔks] for [boks] *box*, no doubt by influence from Standard English.

¹⁶ Editor's note: i.e. the two vowels.

Oddly, Wölck (1965) reports his 12 and 17 as merged (as /a/) in his 'Buchan' and as operating SVLR (with /l, m, n/ added to the long environments: see above), but as contrasted, as /a/ and /a/ respectively, in his 'Standard-Schottisch'. Seemingly vowel 12 opts out in 'Standard-Schottisch' but not in 'Buchan'!

6.2 Vowel 8 (and vowel 4)

Vowel 8 is less detached from SVLR than is vowel 12, but the case of 8 and 4 does in part parallel that of 12 and 17. In (? most) Central and Southern Scots dialects and others (e.g. Skateraw (Kincardineshire)) 8 and 4 merge (? as 4 rather than 8), and (in general) operate SVLR normally. (This can be verified from Watson, 1923, and Zai, 1942, and the relevant LSS phonological books.) On the other hand, Wettstein (1942) reports his Berwickshire as merging 8 and 4 under a uniformly long to half-long vowel [e:], i.e. as 8 rather than 4, which thus by definition opts out of SVLR.

Many other dialects beyond the area indicated keep 8 and 4 at least partly distinct, 8 maintaining in these cases long or half-long realisations in SVLR short environments and so contrasting with 4: some East Fife dialects, such as Crail and Cellardyke, have:

(vowel 8) bait and wait with [e:]; boot (vowel 7) with [e], meat, heat, late etc.; (vowel 4) with [ë];

the dialect of Kirriemuir (Angus) has:

bait and *wait* with [e:ə], *slate* and *heat* with [e].¹⁷

These dialects merge 8 and 4 as [e:] or [e:] or the like before r/r as well as in some but not all of the SVLR short environments, thus distinguishing the two in a selection only of the SVLR short environments. Which environments are selected for maintenance of the distinction and which have 8 and 4 (and in East Fife 7) merged, with long or half-long realisations, seems highly variable. Some East Fife dialects (e.g. Cellardyke) have 8 distinct in most short environments but not in long environments or before l/ (where 4 and 7 merge with 8) and l/(where 7, but not 4, merges with 8). In Kirriemuir, again, 4 merges with 8 before /1/ and /m/, but not /n/. Conversely, the dialect of Fowlis Wester (Crieff), has 8 and 4 merged, as invariable long [e:], in most environments, but appears to distinguish them, as [e:] and [e] respectively, before /d/, /l/ and ^[152] /n/. Still other dialects, such as Dieth's Buchan, have completed the merger and operate SVLR on the result except before /l/ or /l/ and /n/: thus (e.g. Dieth, 1932: 23) hail, tail etc. have [e'e], but hale 'whole', tale, etc. [e]. (A caveat that needs to be added to all the above is that in some dialects at least there appears to have been a good deal of selectional interchange between etymological 8 and 4 items and even, in East Fife, vowel 7 items. That is, we meet sporadic cases of items, such as East Fife bread, dead and *spade*, where 'etymologically' we expect the reflex of vowel 4 and actually find that of 8 [e:] . Perhaps interference from Standard English is the cause of this.)

The general point to be made on all the above is that whatever opting out by 8 occurs, this is always by virtue of 8's having a long vowel where SVLR would require a short.¹⁸

¹⁷ Editor's note: AJA's marginal note corrects from [e] in the original.

6.3 Vowel 5 (and vowel 18)

I believe it will be possible to relate a similar story for vowels 5 and 18, with vowel 5 showing in some dialects long duration in some SVLR short environments (an example is Fowlis Wester), in others operating SVLR (as in Skateraw). This happens in dialects outwith the Central Scots and the major part of the Southern Scots area. In this case the picture may again be confused in some dialects by the intrusion of a second vowel (of [ɔ] quality) alternative to the local reflex of 18 (often of closer, [o] or [o] quality), the intruder no doubt coming from Standard English. Further, many dialects (e.g. Skateraw) have an anomalous form of the word *boat*, with a very long vowel, which is distinct even from reflexes of 5, as [bo:ət] beside e.g. [no:t] or [not] *note*. But in Central and some Southern Scots dialects (e.g. Wettstein's Berwickshire, ? Zai's Morebattle) 5 and 18 merge and operate SVLR normally.

[LAS3 shows many Modern Scots dialects in which vowel 5 has merged with vowel 18 as [0, 5] or (in Ork, Sh and N) [p]. So, in SVLR-short environments, SVLR has shortened vowel 5, /oi/ or /oi/, in the forerunners of these dialects. In many other dialects, however, to the north and south of south East Central and West Central, vowel 5 remains separate from vowel 18 in SVLR-short environments. In the South-West this distinction is qualitative, vowel 5 as [o], vowel 18 as [5]. Elsewhere, however, the distinction is often solely by quantity, vowel 5 as [o:], vowel 18 as [5]. Elsewhere, however, the distinction is often solely by quantity, vowel 5 as [o:], vowel 18 as [o], e.g. in *coat* [ko:t] vowel 5 versus *cot* [kot] vowel 18: in these dialects vowel 5 has 'opted out' of SVLR, remaining long in the SVLR-short environment, thus avoiding, in these dialects, homonym clash with vowel 18. However, there is still another group of dialects, of north Lanarkshire and north Ayrshire, which have lengthened all SVLR-short vowels except vowel 2, viz. modSc /i(:)/, and in these of course the contrast just noted is neutralised.]¹⁹

6.4 Vowel 16 (and vowel 15)

Finally some dialects have still another vowel opting out of SVLR with a fully long realisation in some or all of the SVLR short environments, namely vowel 16, in these dialects [ϵ :] in short as well as long environments, contrasting with [ϵ], their reflex of 15, e.g. in:

[be:t] *bet*, against [bet] *bit*, [he:l] *hell* against [hel] *hill*, [le:z] *Les* against [lez] *Liz*, and so on.

So far I have encountered this phenomenon only in East Coast fisher towns, including:

Crail, Cellardyke, and, further north, in some environments LSS's Skateraw,²⁰ and, with 16 as [ϵ '] (i.e. not fully long), 15 as [ϵ] Pultneytown.

¹⁸ Editor's note: the complicated interaction of vowel 8 monophthongisation, shortening, and merger with vowel 4 (or vice versa) is discussed in *The Older Scots Vowels* (†Aitken, 2002: §22). The evidence of different rule ordering in different places suggests that the various changes were spreading at about the same time. Some South-Western dialects have an unmerged vowel 8 which does operate SVLR (ibid. §22.3.5.)

¹⁹ Editor's note: from *The Older Scots Vowels* (†Aitken, 2002: 126–7); a different style of diacritics is used in the original. The dialect areas are as named in *The Concise Scots Dictionary* Map 1.

²⁰ Editor's note: this is Skateraw in Kincardineshire, not the place of the same name in East Lothian.

Still further north, in Dunrossness, the same phenomenon occurs before /t/ and /d/. I am assuming that this behaviour of vowel 16 in these dialects has been motivated by a need to prevent a threatened merger with 15, and that it need not be considered further in the discussion of SVLR.

^[153] 6.5 Conclusion

In contrast with the phonemes we have been considering in this section, I am not aware of any dialects in which any of the Early Scots long high vowels, viz. 1, 2, 6 and 7, opts out of SVLR by maintaining fully long realisations in SVLR short environments. Even half-long realisation for 2 and 6 is uncommon in these environments; as we have seen, for vowel 7 only fully short realisation occurs in the short environments. Accordingly, we may perhaps now group the Scottish vowel phonemes, with respect to the regularity or otherwise of their adherence to SVLR, into the following sets:²¹

1. the Early Scots high short vowels, 15 and 19, and ? 14 /iu/. (This set achieved and maintained fully short realisation in all environments.)

- 2. the Early Scots high long monophthongs, 1, 2, 6 and 7;
- 3. the Early Scots non-high long front monophthong;
- 4. the Early Scots non-high long back monophthong;
- 5. the Early Scots non-high short vowels, 16, 17 and 18;
- 6. the Early Scots narrow (high) diphthongs, 10 and 13;
- 7. the Early Scots wide (low-to-high) diphthongs, 12 and 8.

I am uncertain whether to assign the Early Scots wide (mid back-to-high front) diphthong, 9, to an additional (one-member) set (8).

[Some 160 of the dialects of Scotland reported on in LAS3 show total adherence to the Rule in at least three of vowels 1, 2, 6 and 7.]²² Adherence to SVLR is most regular and general with set (2) and least universal with set (7) (and ? (8)). This is no doubt relevant to section 7's discussion of the history of SVLR.

7 History

Before Murray (1873) direct evidence of the existence of SVLR is slight. In c. 1775 Sylvester Douglas states that *pride* and *deny'd* are non-rhyming, since, though both contain the "diphthongal sound of i. . in *pride* that sound is shortened and protracted in *deny'd*" (see Kohler, 1966: 36).²³ Grant and Dixon (1921: §151) point to the apparent occasional spellings

²¹ Editor's note: in the original these are ordered so as to suggest the order of likelihood of complying with the SVLR. As AJA had not had the opportunity to confirm this against the published data of LAS3, he rearranged the list in his revision by phonological categories instead.

²² Editor's note: from *The Older Scots Vowels* (†Aitken, 2002: 130).

²³ About the same time there appeared *The Contrast* in a remarkably careful phonemic spelling, the most striking feature of which is the highly consistent discrimination between the graphs $\langle oi, oy \rangle$ solely in 1*l* words such as $\langle foive \rangle$ *five*, $\langle moy \rangle$ *my*, never overlapping with $\langle ei, ey \rangle$ in 1*s* words such as $\langle daleited \rangle$ *delighted*, $\langle whey why - AJA$.

pare 'poor' (1674 Stitchil, Roxburghshire) and *shin* 'shoes' (1635, Galston, Ayrshire) as evidence of the unrounding by these dates of vowel 7. If these are not editorial or scribal errors, they seem to be evidence for an SVLR arrangement already existing in vowel 7. Grant and Dixon (ibid.) cite in support Burns' rhyme of *ane* i.e. /jɪn/ (vowel 15) and *abune* i.e. / Λ 'bin/ (vowel 7). A good deal more evidence of this sort needs to be collected from seventeenth and eighteenth century sources for full conviction from this direction.

[Some Orkney, Caithness and Southern dialects , and occasionally others, have merged vowel 12, early MSc /a:/ or /a:/, with vowel 17 /a/ in most environments; but most dialects keep them quite separate.²⁴ There is some spelling evidence in the *Peebles Burgh Records* of the 1560s for the merger: <sailfand> (= *saufand* 'saving') 28 October 1564, and *bailk* 'back' 20 August 1564, seem to combine the vowel 4, hence vowel 17, spelling <ai>ai> with vowel 12's <al>. From 25 April 1571 on, there are vowel 12 spellings of vowel 17, e.g. *wauch(ing)* 'watch(ing)', and *lawdis* 'lads' 7 February 1572. Meurman-Solin (1999) has also suggested that the use of short vowel spellings for long vowels, for which she has examples from as early as the 1540s, indicates SVLR-shortening.]

On less direct considerations it is possible to infer rather greater antiquity for SVLR than these scanty indications suggest. SVLR appears to be almost entirely Scots-specific, bounded by the Border, except (possibly) for an SVLR-like treatment of vowel 1 in the dialects of Northern England. This is what the evidence presented in the Linguistic Atlas of England (LAE) (1978) and what I have been able to find in the Survey of English Dialects Basic Material (1962-71) suggests to me.²⁵ In LAE, for example, vowel 2-3 appears uniformly in SVLR short environments as [i:] (or, word-final, in a North-Eastern English pocket, [ɛi] as in Southern Scots). But within Scotland itself, and extending to Northern Ireland and as far as Shetland (where it operates fairly completely), SVLR exists everywhere. [Of the 186 localities in Scotland and N. Ireland reported on by LAS3, only 9 fail to show some SVLRgoverned vowel-length contrasts of the type /i/ in meet and heel, /i:/ in freeze, /e/ in late and pale, /e:/ in grave, and all 186 (including the 9 exceptions) distinguish between the SVLRshort and SVLR-long outcomes of vowel 1 as $/\epsilon i/$, etc. in *bite*, /ai/, etc., in *five*.]²⁶ On general glottochronological grounds this would suggest an antiquity of several centuries. More particularly, the Shetland and Ulster possession of the Rule, suggest its existence before the large-scale emigration of Scots to these areas was completed (in the sixteenth and seventeenth centuries respectively). We have also seen in section 4 (i) that a date prior to c. 1700 [late sixteenth century] for the existence of SVLR in Shetland is fairly certain on different grounds.

Yet had the Rule been in full operation at the time of the Great Vowel Shift (15th century)²⁷ a merger of vowel 4 (Early Scots /a:/, Middle Scots /e:/) where shortened by the

Editor's note: AJA's note about *The Contrast* is a later MS addition. The text of *The Contrast* is printed in Jones (1995: 248–9), which, despite the title, is largely about Scottish Standard English, and this is also what *The Contrast* exemplifies. It purports to be a letter from one Aulaxaundar Scoat, Cleidbaunk, 1779. As the town of Clydebank did not exist at that time, this may be the farm of that name in the Upper Clyde valley (I owe this suggestion to Iseabail Macleod and Ian Fraser).

²⁴ Editor's note: this sentence inserted from *The Older Scots Vowels* (†Aitken, 2002: 123), and the remainder of this paragraph from *ibid.* (n. 38). For the geographical area in which vowel 17 merges with vowel 12, see LAS3, Maps S23, S24, S26, S28–33: nil values for polyphoneme A. See also Macafee (2002).

²⁵ Editor's note: see Watt and Ingham (2000) for a study of the SVLR in Berwick, and for further references on the limited penetration of SVLR into the North of England.

²⁶ Editor's note: this sentence inserted from *The Older Scots Vowels* (†Aitken, 2002: 129).

²⁷ See 'How to pronounce Older Scots' (Aitken, 1977) for a suggestion that SVLR was incipient but not fully realised before the Great Vowel Shift - AJA.

Rule in the short environments, with vowel 16 (Early Scots $/\epsilon/$), might well have been expected. Though there are fifteenth and sixteenth century spellings which indicate phonetic approximation of 4 and 16 in some environments, these bear no obvious relation to the SVLR conditions and in any case the modern dialects generally do not display any Rule-governed merger of 'short' 4 and 16.

[In a relatively small number of words, vowel 4 has shortened to $[\varepsilon]$ at the $[\varepsilon:]$ stage of its Great Vowel Shift progress to $[\varepsilon:]$, yielding new, fully established, lexemes which survive as doublets in $[\varepsilon]$ alongside the regular forms in $[\varepsilon(:)]$, e.g.:

ModSc /gem/, OSc <gemm> 16, beside modSc /gem/ (game);

ModSc /¹gɛlʌk/, OSc <gellock> 1600 (crowbar), beside OSc and ModSc gavelock /¹gevlok/;

ModSc /hemIr/, OSc <hemmer> 16 (hammer), beside OSc and ModSc haimmer /hemIr/;

ModSc /end/, OSc <end> la 16, beside OSc and ModSc aynd /end/ (breath).

It seems possible that these took place in conservative dialects in which vowel 4 lagged at its [ϵ :] stage of the Great Vowel Shift when SVLR overtook it.]²⁸

Since it extends most completely through the vowel system in Central Scotland, SVLR may perhaps be presumed to have originated there. It was perhaps a consequence of a tendency to reduce all vowels to a more or less uniform phonetic length, namely the short duration already achieved by vowel sets (1) and (5) (see above). It may be presumed to have begun with a shortening of those vowels which in Early Scots were high long monophthongs (set (2)) and narrow (high) diphthongs (set (6)), these being the sets which have most regularly carried through the shortening in all SVLR short environments throughout the entire Scots area. Whether or no this tendency to shortening existed prior to the Great Vowel Shift, it could only manifest itself fully after GVS had brought about the change of vowel quality which made the former oppositions by quantity functionally redundant, viz. the oppositions of:

vowel 1 versus vowel 15, 2 and 3 versus 16, 4 versus 17, 5 versus 18, 6 versus 19.

But this tendency to shortening was resisted in certain 'naturally long' environments, namely before a following /v, ð, z, $_3$, r, $_4$ / (taking $_4$ to mean a morpheme-boundary) and in particular dialects some other environments (see above). In these environments, the sound-change failed, the vowels in question continued to be realised fully long, and SVLR was set up. One by one the remaining sets of vowels conformed to the new pattern of vowel duration thus established, while the sound-change spread out from its area of origin in Central Scotland. The originally short non-high vowels of set (5) have achieved conformity to SVLR by lengthening in the SVLR long environments while maintaining the original short realisation in the short environments. In many peripheral dialects vowels 5 and 8 have partly

²⁸ Editor's note: this paragraph inserted from *The Older Scots Vowels* (†Aitken, 2002: 129).

or wholly failed to carry out the shortening and in most dialects vowel 12 has failed to carry it out at all: perhaps these vowels, comprising our sets (4) and (7), were most resistant to the change and consequently the last to be affected by it.

The sound-change which produced the modern reflexes of Early Scots vowel 1 I have conjectured (see 4 (ii) above) to have taken place in two stages. First came the shortening of this vowel in the short environments, setting up the SVLR lexical distribution. This resulted in two variants of similar quality but distinct quantity, according to the regular SVLR arrangement. This stage was followed, perhaps rather later, by a progressive qualitative change spreading through the several allophones of the long variant, yielding a wider as well as slower diphthong as its result, ultimately [are], [are] or the like. The whole of this process, which, as was suggested above, has proceeded furthest at its presumable point of initiation, Central Scotland, implies a considerable length of time to reach its present state of completion over several extensive areas.

At some point in this process vowel 1s has merged with 10 and 8a. In general, and certainly in Central Scotland, the merger is with the short variant of 1; the long remains quite apart from it. This suggests that the long of vowel 1 was already distinct in quality as well as quantity by thus time. On the other hand there are some (non-Central) dialects which do have some 8a and 10 items sharing the vowel of 1l, beside larger numbers of others with the vowel of 1s: Dieth's Buchan, e.g., has the 1l vowel in [tʃɑrez] *choose*, [fɑre] *whey*, [wɑre] *way*, [swɑre] *swee*, [kən'vɑre] *convey*, the four last, it will be noticed, all preceded by a labial consonant. Presumably these particular items had for some reason been captured by 1l before the quality of this had become widely differentiated from that of 1s (and 10 and 8a). Perhaps in these more peripheral dialects the qualitative differentiation of 1l from 1s was only just under way when the merger of 10 and 8a with 1s was taking place? But since this merger is, as far as I know, universal, it can scarcely be very recent. Perhaps all this was accomplished by James VI's time (late sixteenth century).

The split of vowel 7 and the merger of its longs with 4, its shorts with 15, is the most localised (to Central and Southern Scotland and Ulster) of the sound-changes mentioned in this section. And its outward spread is still uncompleted (see above). As the apparently total lack of Middle Scots orthographical and rhyme evidence for it suggests, this sound-change can not have begun much if at all before the seventeenth century. By that time the SVLR distribution of vowel 7's lexical inventory between the long and the short variant must have been long established.

Note

I am grateful to James Mather and, especially, Hans Speitel for enabling me to have access to and draw on the collections of the Linguistic Survey of Scotland (Scots Section) (LSS), without which the present account would be still more incomplete. In most instances when no other authority is cited for a reference to local dialect usage, my source is one of a selection of LSS books representative of a number of different regions (but my remarks on Crail and Cellardyke are from my own observations). But of course neither James Mather nor Hans Speitel is responsible for any of the conclusions I have drawn from the information they generously made available.

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