Issues in Scottish Vowel Quantity

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By

Sławomir Zdziebko

**CAMBRIDGE
SCHOLARS**

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PREFACE

The Scottish Vowel Length Rule is a generalisation about the distribution of long vocalic objects in the accent of English referred to as Standard Scottish English and various accents of the Scots language. The differences between the use of vowel quantity in Scottish English and southern varieties of the language were reported throughout the 18th as well as 19th century (e.g. Robertson 1722, Drummond 1767, Elphinston 1787, Murray 1873, Ellis 1889). After the rise of modern linguistics several works on dialects used in Scotland were published (e.g. Grant 1912, Dieth 1932, Wettstein 1942, Aitken 1962) which served as sources for linguists bringing up the topic of vowel length in Scotland for a relatively long time. The instrumental examinations of the vocalic length in Scottish English started only in the late 70's of the 20th century and addressed important problems connected with the Scottish Vowel Length Rule (SVLR) input and environment. They revealed certain intriguing properties of Scottish quantity which in this work will serve as indicators of the evaluation of several theoretical analyses of the rule. That is one of the aims of this work. Another aim is to propose an alternative approach to the rule that will comply with the empirical facts in a more satisfactory way than the traditional approaches. This approach will be presented in detail in chapters 2 and 3 of the book.

The outline of the work is as follows: the first chapter will be devoted to a brief presentation of the historical and sociolinguistic background of Standard Scottish English and make the reader acquainted with the basic facts connected with the phonetic and phonological features of the accent concerning its consonantal and vocalic system. I am going to devote a separate section to the quantitative phenomena in SSE and particularly the Scottish Vowel Length Rule. Some facts concerning the history of the process will also be presented and, finally, the details of several empirical investigations of Standard Scottish English will be discussed.

Chapter 2 is intended to provide the reader with relevant facets of theoretical frameworks employed in the analyses of SVLR. In section 2 I am going to present the major assumptions of the theory of Lexical Phonology, in which the attempts at identifying the domain of application of the Scottish Vowel Length Rule were couched. I am also going to discuss the motivation behind shifting the burden from derivational

components of grammar to the lexicon as well as such principles of Lexical Phonology as Strict Cycle Condition (Kiparsky 1982a/b, McMahon 2000), Bracket Erasure (Kiparsky 1982b, Mohanan 1986) and Structure Preservation (Borowsky 1989, 1990). Section 3 will be devoted to the presentation of the theory of phonological representation in which some of the most innovative attempts at formalising the Scottish Vowel Length Rule were made i.e. Dependency Phonology (Anderson and Ewen 1987).

In the last section of chapter 2 I will make the reader acquainted with the basic notions of the framework that will be used in the analysis of SVLR that I would like to present in this book. This calls for the introduction of such mechanisms as licensing and government as well as the Empty Category Principle. The application of the lateral relation to strings of segments will also be discussed, which requires the introduction of such assumptions as the Domain-driven Licensing Hypothesis and the No-two-Gov principle. I will also discuss the treatment of long vowels in other versions of CVCV Phonology and present the three principles that, I claim, regulate the distribution of long vowels in the languages of the world: the scale of licensing potential of nuclei, the new concept of Licensing Absorption and the scales of vocalic length.

In chapter 3 I am going to go through the three major aspects of the interpretation of SVLR: the presentation of the set of vowels undergoing the rule as forming a natural class (2.1), the identification of the context that triggers the process (2.2.) and the identity of the Scottish Vowel Length Rule as lengthening, shortening or other sort of process as well as the placement of the rule within the grammar of a Scottish Standard English speaker (2.3.). Section 3 will serve as a presentation of an alternative analysis of vocalic length in SSE. I am going to present the view on the vowel system of SSE that is capable of capturing several of its properties which were often disregarded in previous accounts. The quantitative phenomena in synchronic SSE will be given a principled, representation-driven account. Section 3.3. will be entirely devoted to the history of vowel quantity in Scots and SSE. In this section I will demonstrate how the principles of grammar assumed in this book produced particular quantitative patterns in the 16th, 17th, 18th and the 19th-century Scots and SSE.

Chapter 4 presents the reader with concluding remarks and indicates several areas of study that should be covered is order for the Scottish vowel quantity to be fully understood.

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Special recognition must also be granted to the coordinators of the PAC project professor Jacques Durand and professor Philip Carr as well as all the researchers involved in the project. I am extremely grateful to Monika Pukli and Gabor Turcsan for making the recordings of Ayrshire speakers available to me. If not for their help, many of the aspects of the analyses presented in this book could not be included here.

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Last but not least I would like to warmly thank my parents for their devotion and support and Ewelina Mokrosz for her patience and self-control during the long hours in which the only sound that could be heard from me was hectic drumming of my fingers against a computer's keyboard as well as to all the persons whose help contributed to the writing of this book and whose names I am unable to enumerate here. I want to thank you most sincerely!

Chapter One

Standard Scottish English
and the Scottish Vowel Length Rule

> We who live in Scotland are obliged to study English from books, like a dead language which we can understand but cannot speak. Our style smells of the lamp and we are slaves of the language, and are continually afraid of committing gross blunders.
>
> —James Beattie, Scottish philosopher and poet

1. Introduction

In this chapter I would like to, among other things, make the reader familiar with the contemporary (socio)linguistic situation found in Scotland as well as with its historical background. This, in my opinion, is necessary in order to define properly the subject matter of this book, i.e. the description and explanation of the working of the Scottish Vowel Length Rule in Standard Scottish English. Consequently, making clear what this work is concerned with requires providing the definition of the Scottish Vowel Length Rule (SVLR) as well as explaining what sociolinguistic and linguistic reality is hidden behind the name of Standard Scottish English (SSE). The former task will be performed later in this chapter, after the phonetic system and the internal history of SSE have been discussed and briefly juxtaposed with that of Standard Southern British English (SSBE). This section will be entirely preoccupied with the sketching of what SSE is, what its origins are as well as how, and by whom, it is used.

2. The sociolinguistic situation in Scotland now and in the past.

As providing the readers with the entire linguistic history of Scotland is far beyond the scope of this work, let me start with the characterisation of the origin of SSE in, what may be called, evolutionary *medias res* of the English used in Scotland, that is, in the middle of the 16th century.[1] At that time two major languages were present in Scotland: Gaelic, spoken mainly in the Highlands and in the north and Scots, characteristic of the Lowlands. The former language, present in Scotland since, at least, the 5th century and closely related to Irish, was strongly stigmatised and identified with the lower classes of Scottish society as the language of the Highlanders. Scots, on the other hand, was an integral part of the continuum of English dialects stretching, geographically, from the south coast of England to the Scottish Highlands and, historically, from the early-5th-century Germanic language(s) brought to England by the Anglo-Saxon settlers up to now. At least since the 15th century, Scots, back then referred to as 'Ynglis', had been enjoying its heyday as a linguistic standard for Scotland. It was the language of the Edinburgh court and Parliament, where it replaced Latin in 1424 (40 years before Southern English was recognised as the official language of the English Parliament). Barbour's *Brus* from 1375 is the first known literary work written in Scots. Later, the greatest poems by Dunbar, Lyndsay and Douglas were created in this language. As McMahon summarises 'By 1500, Scots was securely established as the official language of the court, judiciary and government…' (2000: 142). This situation, however, was to change quite drastically in the following centuries.

According to Ford (2004), although people in Britain were fully aware of the dialectal diversification of the island they lived on, up to the late 16th century no particular dialect of English was seen as more prestigious than others. The accent with which a gentleman spoke betrayed the region he was born and raised in but was by no means a factor that could deprive him of respect among the inhabitants of other regions or cities. This situation of equality came to an end around the beginning of the second half of the 16th century. The reputed English literary critic of the period, George Puttenham, in his *The Arte of English Poesie* wrote about his fellow countrymen from the northern shires: '...though no man can deny but that theirs is the purer English Saxon at this day, yet it is not so Courtly nor so currant as our Southerne English is...' (1589 after Ford 2004: 18). The middle 16th century can be seen as the beginning of the London English as the prestigious standard, the emulation of which soon

would be a must for every gentleman desirous of a career in the administration or court, or simply careful not to suffer social disapproval among the elite of the capital.

It is important to state that Scots started to lose ground to Southern English among the literate part of Scottish society a couple of decades before the Union of the Crowns. The Reformation represented in Scotland by John Knox and his Presbyterianism stressed the importance of the Bible. Unfortunately for the language, no Scots edition of the Holy Gospel was available in Scotland in the 16th century. Knox and his followers used the Southern English edition and in this way contributed to the establishing of this variety as the literary standard in the Kingdom of Scotland. Nevertheless, the expansion of London English as the prestigious dialect would probably have left Scots unaffected if certain political decisions had not been made. On 24th March 1603 James VI of Scotland was crowned as James I of England starting the reign of the Stuarts on the English throne and the period of the political decline of Scotland as an independent kingdom. That meant the decline of Scots as the official variety. The court moved to London and adopted its political and social standards and, naturally, its speech. James I of England, himself a man of letters, started rewriting in Southern English the ample works of James VI of Scotland. The prestige connected with Scots as the language of the Scottish court ceased to exist. The final blow that Scots as a linguistic standard received was the Union of Parliaments in 1707. From that moment on, Southern English became the official language of education and administration. Although attempts at standardising Scots, or at least re-establishing it as a literary medium, were undertaken in the 18th century by figures like Allan Ramsay or Robert Burns and by Hugh MacDiarmid in the 20th century, none of them brought any lasting effect. It is often stipulated by scholars what the situation would be now if Scots had retained its position as the official language of the Kingdom of Scotland. Would we be witnesses of the existence of two separate countries speaking largely intelligible standards (the situation encountered in Sweden and Norway as well as Slovakia and the Czech Republic)? As this question, however nagging it is, is not in direct relation to the topic of this book I will leave it unanswered. Let me just say that the defeat that Scots suffered in the struggle to become a long lasting standard has had at least one advantage, that is, the unification of the spelling system throughout the UK.

As the London or Southern English was growing prominent as the standard dialect of the United Kingdom, the representatives of nobility who wanted to indulge, in this or that way, in the prestige of the capital

and, at the same time, avoid exposing themselves to mockery, frequently took courses of elocution in London. Moreover, it was not infrequent that the elocutionists were invited to the countryside to teach the noblemen the correct (read: London) pronunciation and grammar. This tendency was present in the entire Britain, including Scotland. However, as McMahon wittily puts it '...it seems that the journey to Edinburgh, particularly in winter, did not recommend itself to many London-based elocutionists…' (2000: 143). The exact reasons why certain features of Scots were notoriously present in the speech of the *crème de la crème* of Scottish society despite long lasting and persistent attempts to root them out are not known. What we are sure of is that the correction of the linguistic habits of the Scottish nobility frequently took place through reading books, a therapy that, although successful in introducing new vocabulary and syntax, is completely inefficacious as far as the 'correcting' of pronunciation is considered. Additionally, the degree to which the Scottish noblemen of the 17th and the 18th century actually *wanted* to learn the standard pronunciation is also not clear. Nowadays, it is common knowledge among language teachers that the motivation and attitude towards the language being learnt are important factors in L2 acquisition and *the* factors that condition the very possibility of attaining (near) native-like pronunciation. The idea that internal motivation and positive attitude towards Southern English were present in speakers of Scots is highly suspect. The approach of the Scottish people towards Standard English is illustrated by the bitter quotation from the 18th and 19th century Scottish philosopher James Beattie presented at the beginning of this chapter after Trumpener (1997: 73). The undeniable fact is that the 18th-century Scotland was the venue of a clash between the advocates of attempts to 'devulgarise' Scottish speech by making it as close to the London standard as possible and the figures who perceived the Scots spoken by the upper class of the society as, to all intents and purposes, purer and more perfect than the southern standard. The former were grouped around Thomas Sheridan and the Select Society working in Edinburgh from the middle of the 18th century. The latter position was particularly strongly supported by two Roman Catholic clergymen James Addams and Alexander Geddes.

No matter what the reason behind the inability of Scottish noblemen to master the southern pronunciation was, in the course of time the speakers of Southern English started to believe that the Scots pronunciation is an incurable defect of the speakers of English from the north of the Kingdom. The result was the creation of a new variety of the English language that comprised the lexis and grammar of Southern English and Scots

pronunciation. This variety, now referred to as Scottish Standard English, spread throughout the Lowlands pushing Scots north to the Highlands, where it replaced Gaelic. By the 19th century Scots had virtually disappeared as a written language. Durand (2004) points to universal education, urbanisation and other factors that had their impact on the suppressing of Scots even as a spoken variety. In spite of the long lasting suppression, Scots is still spoken in the rural areas of Scotland as well as among the working class (WC) of Edinburgh and, especially, Glasgow. It is also visible in writing in e.g. Irvin Welsh's *Trainspotting*. According to the European Charter for Regional Minority Languages, signed by the UK in 2000, Scots is a separate language. Due to this fact, the majority of people in Scotland are bilinguals capable of unconscious code switching between SSE and Scots, which makes it impossible to establish the sharp division between the two dialects/languages. According to Aitken (1981a) speakers of Scots and SSE operate along a continuum the one pole of which is Scots and the other SSE. The speakers have access to both the systems and make choices as to which is appropriate to use in a given situation on the basis of stylistic and contextual cues. Although, it is possible to talk about exclusively Scots lexical items like *puir* for SSE *pure*, *ken* for SSE *know* or *wee* for SSE *little*, there is no dearth of somewhere-in-between words, a fact that makes the dialectal situation in Scotland highly complicated. Moreover, it is not infrequent that a single speaker within a single utterance switches from Scots to SSE without any obvious trigger in the co-text (see Durand 2004). This type of inconsistencies can be observed at all levels of linguistic competence. As it is not the aim of my work to discuss all the convoluted nuances of Scottish dialectology, let me just briefly state that there is no agreement as to the mutual relation and the degree of interference between SSE and Scots. Nevertheless, both varieties are distinct dialects, SSE being usually used by middle class (MC) speakers and in all sorts of formal occasions and Scots being a feature of the working class speech and a home language. This work is preoccupied with the explanation of the working of SVLR in SSE rather than in Scots for two reasons: firstly, the most comprehensive and conclusive instrumental measurements available were conducted on speakers of SSE or, I should say, the samples gathered were SSE samples (see McKenna 1988, Scobbie *et al.* 1999a/b, Scobbie and Stuart-Smith 2006, Pukli 2006). Secondly, the comprehensive interpretation of SVLR in Scots would simply require too much space, due to the huge differences between particular dialects. For further information concerning the working of SVLR in Scots see The Linguistic Atlas Of Scotland, as well as an insightful article by Aitken (1981b). Worth

recommending are also Watt and Yurkova (2007), a study of Aberdeen English, Scobbie (2005), a study of Shetland English, the purpose of which was the examination of interspeaker variations and Watt and Ingham (2000), a study of the working of SVLR in the city of Berwick upon Tweed, in Northumberland. The last two papers are based on small samples of 4 and 8 speakers and the results are comparable to those for SSE found in McKenna (1988) and Scobbie *et al.* (1999a/b).

To make the picture of the sociolinguistic situation in Scotland complete, one more issue must be mentioned, i.e. the influence of Standard Southern British English on SSE. As I have mentioned, SSBE does not enjoy the same status in Scotland as it does in other parts of the UK. According to Stuart-Smith (1999), in some parts of Glasgow it is disapproved of and evokes hostile reactions. Nevertheless, SSE has never been resistant to influences from the southern variety. Durand (2004) presents several areas in which SSBE influenced and still influences SSE. It has been observed that the upper class speakers of SSE, especially in Edinburgh, who have frequent contact with SSBE speakers, have a tendency to adjust their sound system to that used in the south. Most often this kind of adjustment encompasses the presence of the distinction between /æ/ and /ɑ/, otherwise absent from the system of SSE. This deviation from the standard Scottish pronunciation is said to reflect the earlier stages of the development of SSBE transferred into SSE as far back as in the 18th century. This interpretation is supported by the fact that the SSE speakers that contrast /æ/ with /ɑ/, use them in completely different fashion than SSBE speakers. More on the use of low vowels in SSE will be said shortly. Other, substantially less frequent examples of the influence of southern English on SSE are the phonemic distinction between /ɒ/ and /ɔ/ as well as between /ʊ/ and /u/, the lack of variation between /ʌi/ and /aːi/ diphthongs, lack of typically Scottish sound /x/ in words like *loch* and *dreich*, where it is replaced by SSBE /k/, and lack of phonemic distinction between /w/ and /ʍ/, which leads to the neutralization of minimal pairs *witch - which* and *were - where*. To finish with, the SSBE is said to influence the rhoticity of the Scottish standard. At least since the beginning of the 20th century, the typical Scottish realization of /r/, that is, alveolar trill, has been gradually undergoing weakening '…especially in final position and before other consonants.' (Grant 1912: 35). The details of the pronunciation of /r/ in SSE will be presented in the next section together with other influences of SSBE. Now, let me only mention that there are areas of Scotland where rhoticity is no longer present e.g. among children in Edinburgh (Noel 2003).

Having briefly described the sociolinguistic situation in present-day Scotland as well as its origins, let me proceed to the description of the phonetic inventory of SSE and its comparison with the system of SSBE.

3. The phonetic properties of SSE

3.1. SSE consonants

It is often emphasized in literature (McMahon 2000, Durand 2004) that the dialects of English are rather uniformly conservative and surprisingly similar to one another as far as their consonantal inventories are considered. This generalization also holds for SSE and SSBE. Nevertheless, some important differences are worth elaborating on.

As far as non-continuants are considered, in addition to two affricates /tʃ/ and /dʒ/, SSE possesses three voiceless/fortis, /p/, /t/, /k/, and three voiced/lenis oral stops, /b/, /d/, /g/. What has to be noted is that the realisation of the voiceless oral stops comprises weak aspiration and glottalsation. According to Chirrey (1999), in Edinburgh, in word-final and pre-consonantal positions /p/, /t/, /k/ and the affricate /tʃ/ may be realised as glottalised. However, only /t/ and /k/ are realised as a glottal stop on a regular basis. The coronal voiceless stop is realised as a glottal stop intervocalically before unstressed vowels in 'all socio-economic groups' and may be realised as such word-initially when followed by an unstressed vowel (/ʔʌde/ for *today*), especially in speakers whose speech is closer to Scots.

As far as fricatives are considered, the inventory of SSE is richer than the inventory of Southern English. Apart from the usual set of fricatives it comprises the velar fricative /x/ in words like *loch* 'lake'*, bachle* 'untidy person', *flech* 'flea', proper names like *Tulloch*, *Strachan*, *Auchtermuchty* as well as non-native items of Hebrew or Greek origin like *patriarch* and *epoch*. Palatal fricative [ç] is occasionally heard in the context of front vowels e.g. *dreich* 'miserable, depressing (usually about weather)'. [x] (and [ç] but see below) can be analysed as an allophone of /h/ as the two items appear in complementary distribution, [h] forming onsets of stressed syllables and [x] occurring in codas and onsets of unstressed syllables.

As has been mentioned before, many SSE speakers differentiate between pairs like *where - were* and *which - witch*, where the first member of each pair in pronounced with the labiovelar fricative /ʍ/. It has to be stated, however, that the status of /ʍ/ as a single phonological object has been questioned. It is often transcribed as /hw/ or even /xw/ (see Durand

2004). At first sight, the cluster interpretation seems improbable as /w/ clustering with fricatives is very rare in English. The only exceptions here are /sw/ clusters, which abound but whose behaviour is highly problematic (see Kaye 1996). Similarly, according to Scobbie and Stuart-Smith (2006) /hw/ would be the only cluster '...in which /h/ is involved synchronically.' (2006: 8). On the other hand /hw/ would make a parallel with the cluster of the glottal fricative and another glide, i.e. /j/. Moreover, both /h/ + glide clusters can be pronounced in one-segment fashion, /hw/ as /ʍ/ and /hj/ as /ç/. Scobbie and Stuart-Smith also draw attention to the fact that the speakers of SSE who simplify the /h/ + glide clusters simplify them to /w/ and /j/, producing /wɪtʃ/ and /jumən/ for *which* and *human*. Whichever interpretation of this phenomenon one assumes, the segmental status of /ʍ/ remains unclear. To finish the brief discussion of /x/ and /ʍ/, it should be stated that, while almost all (non-anglicised) speakers use /x/ rather consistently for <*ch*>, Wells (1982) claims that /ʍ/ can be often found in forms that are not spelled with <*wh*> e.g. *weasel*, and /w/ in words spelled with <*wh*> e.g. *whelk*.

   As to the sonorants, SSE has three nasals traditionally claimed to be phonemic, that is /m/, /n/ and /ŋ/. Chirrey (1999) reports on the frequent realisation of nasals as nasalisation on preceding vowel, e.g. /ʌgẽst/ for *against* and /aʔsɛ̃ʔ/ for *accent*. Similarly, the phonemic inventory of glides is the same as in SSBE. The same can be said about liquids. Nevertheless, substantial differences exist in the realisation of SSE and SSBE liquids. As far as the lateral is concerned, there is no division into, so called, 'dark' and 'clear' /l/ in SSE. In the majority of speakers all instances of the lateral are velarised or 'dark' and dental. /l/-vocalisation is a fairly common feature of SSE producing realisations like /koʊd/ for *cold* or /wɔɣz/ for *walls*. As far as /r/ is considered, its presence is much greater in SSE than in SSBE. SSE is a rhotic dialect. As for the realisation of /r/ in Scotland, the traditionally Scottish alveolar trill is nowadays heard only in the north of Scotland and even there its use is very rare. The usual realisations of /r/ in Scotland are the single flap or tap ([ɾ]) or the (post)alveolar approximant ([ɹ]), familiar from the southern varieties of English and General American. It is often the case that the tap is used intervocalically and after a consonant, whereas the approximant is used before a consonant and word-finally. Both realisations can be heard word initially (see Wells 1982, Durand 2004). Chirrey (1999) comments on the realisations of /r/ in Edinburgh, and claims that the alveolar approximant may be encountered in all positions, [ɾ] is heard intervocalically and post-consonantally. She also reports on the presence of a retroflex approximant, [ɻ], in word-final and preconsonantal position.
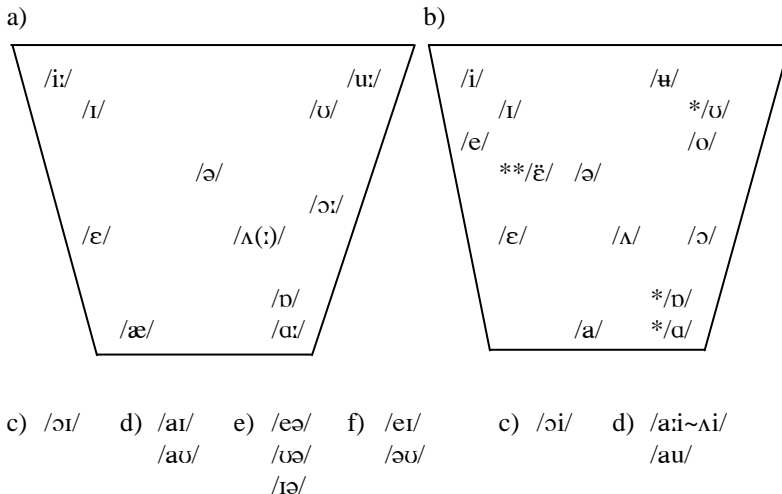
Now let me proceed to the discussion of the vocalic system of SSE and its comparison with the system of Southern English.

3.2. SSE vowels

3.2.1. Monophthongs

While the consonantal systems of SSE and SSBE are more or less comparable, the same cannot be said about the vocalic inventories of the two dialects. The sets of vowels found in the two varieties under investigation are presented below.

(1) Vocalic inventories of SSBE and SSE (after Durand 2004):

a)   b)

/iː/		/uː/
/ɪ/		/ʊ/
	/ə/	
		/ɔː/
/ɛ/	/ʌ(ː)/	
		/ɒ/
/æ/	/ɑː/	

/i/		/ʉ/
/ɪ/		*/ʊ/
/e/		/o/
**/ë̞/	/ə/	
/ɛ/	/ʌ/	/ɔ/
		*/ɒ/
/a/	*/ɑ/	

c) /ɔɪ/   d) /aɪ/   e) /eə/   f) /eɪ/   c) /ɔi/   d) /aːi~ʌi/
          /aʊ/   /ʊə/   /əʊ/   /au/
                    /ɪə/

In the right-hand trapezium, which represents SSE vowels, objects marked with an asterisk are vowels present in only some speakers. Abercrombie (1979) argues for an implicational relationship between the three asterisked back vowels. He claims that if a speaker possesses /ɒ/ in his/her inventory, s/he also possesses /ɑ/. The presence of /ʊ/ implies the presence of /ɒ/ and /ɑ/. The reverse is not true. Although, to the best of my knowledge, no research has been conducted to verify or falsify Abercrombie's claim, Wells (1982) and Durand (2004) repeat his generalisation. The latter author claims that it is in accordance with his personal observations of the speech of SSE native speakers. It is, however,

an undeniable fact that the presence of both /a/ (or /æ/) and /ɑ/ in one speaker is not infrequent, especially in Edinburgh, whereas the presence of /ɒ/ and /ʊ/ is somewhat marginal. The existence of the three objects in the vocalic inventories of speakers of SSE is claimed to be the result of the SSBE influence on the Scottish variety. It is often emphasised, however, that this influence is by no means recent and may be traced back to the 18th century. It is even sometimes treated as the source of information about the distribution of open vowels in the 18th-century southern English (see Durand 2004). This claim is supported by the fact that the manner in which SSE speakers use /a/ (or /æ/) and /ɑ/ often sounds clumsy to speakers of SSBE. Scots frequently use /æ/ where SSBE requires /ɑ/ and /ɑ/ where /æ/ is to be expected. Among the most widely quoted examples of non-standard use of the two open vowels are words like *gather* and *salmon*, which contain /æ/ in SSBE but /ɑ/ in SSE and *rather* and *calmer*, in which /ɑ/ can be heard in SSBE, whereas /æ/ is used in SSE. As a consequence of that distribution, /rɑːðə/ and /gæðə/ are standard southern pronunciations of *rather* and *gather*, in Scotland /ræðər/ and /gɑːðər/ are usually heard. Another Scottish shibboleth is the compound *gas mask*. The word was widely used during the times of WWII. The Scottish speakers who, for reasons of prestige, wanted to imitate southern pronunciation often caused consternation in the native southerners by producing 'monsters' to the shape of /gɑːsmæsk/. The three vowels that bear single asterisks in (1b) do not belong in the standard vocalic inventory of SSE and therefore are often omitted in phonological interpretations of the SSE vowels.

As for the vowel marked with two asterisks it is traditionally referred to as Aitken's vowel in honour of the distinguished Scottish phonetician who first attracted the attention of international scholarship to this and many other aspects of Scottish phonology. Aitken's vowel is pronounced as a half closed vowel with quality between /ɪ/ and /ɛ/. Its distribution is restricted to stressed positions in lexical items like *never*, *seven*, *eleven* or *shepherd*. There are also regional restrictions as to the occurrence of /ĕ/, as it is confined to Perthshire, the west of Scotland and in the Borders. It is also often heard in Edinburgh. Curiously enough, Winston (1970) showed that, although relatively frequent among Edinburgh speakers, Aitken's vowel is used inconsistently, in different words by different speakers. As to the origins of /ĕ/, Kohler (1964) in his PhD dissertation claims that it is an original Scottish vowel and that /ɪ/, which also occurs in the words where Aitken's vowel can be found, is a later borrowing from Southern English. According to Kohler, it was interspersed throughout the Scottish lexicon through lexical diffusion. If this is true, it accounts for the

irregular distribution of /ɛ̆/. Some scholars (e.g. Aitken 2002) see the development of /ɛ̆/ from /ɪ/ as parallel to the /ʊ/-lowering and unrounding. Since the latter change is said to have started affecting the systems of Scots and Northern English in the late 17ᵗʰ century, it seems reasonable to assume that Aitken's vowel became part of the vocalic inventory of the said dialects around the same time.

As far as other back vowels are concerned, SSE possesses /ɔː/, one of the vowels that are argued to be invariably long in many accents of SSE. In the basic inventory of SSE, that is, the one without /ɑː/, /ʊ/ and /ɒ/, /ɔː/ we find in words of the LOT and THOUGHT type, to use Wells's (1982) terminology. As the reader probably know, LOT set has a different vowel in SSBE, the usual transcription of which is /ɒ/. /ɒ/ has two basic sources in the present day SSBE. One of them is the lowering of the Middle English (ME) /o/ vowel that, according to Lass CHEL III 3.4.1.2 took place in two stages: first, by the 17ᵗʰ century /o/ found in items like *pot* had been lowered to /ɔ/ and later, probably around the middle of the century, it developed into /ɒ/. The second major source of /ɒ/ is the early 17ᵗʰ century retraction of ME /a/ that was particularly productive after /w/ e.g. in *ward*, *dwarf*, *was* or *swan*. An interesting fact about the regular presence of /ɔː/ in the Scottish standard is that it is one of the traits of SSE which make it different from both SSBE which has /ɒ/ (as in /pɒt/) and conservative Scots accents /o(ː)/ (as in /po(ː)t/). However, not long ago the situation was not that clear cut. Relations of the 18ᵗʰ and 19ᵗʰ century commentators like James Robertson (1722), Sylvester Douglas (Jones 1991), Alexander Scot (1779), Scott (1807), Murray (1873) bring one's attention to the notorious use of a low mid vowel in words requiring the high mid object and vice versa. Thus, William Scott (1807: xxvi) points to combinations of words that have different back vowels (e.g. *post-office*, *I thought so*, *go on*) as particularly problematic for Scottish speakers, who tend to confuse the quality of the two vowels (see the *gas mask* example above). What might suggest that the /o~ɔ/ alternation was confined to the area of Scottish English now identified with Scots is the assertion by Douglas that the mid back merger '... is not the part of the vernacular pronunciation of Scotland' (Jones 1991: 47) and by vernacular he clearly refers to some kind of the 18ᵗʰ century standard. However, this claim is not borne out by what one finds in the accounts of Alexander Scot whose 1779 'The Contrast' describes '...the present Caledonian English of the college, the pulpit and the bar' (Jones 1993: 102) and contains several items, admittedly not very many, that are clearly pronounced with an /ɔ/-like vowel despite their history pointing to an /o/-like sound. A more convincing piece of evidence for the presence of /o~ɔ/ alternation comes from the late 19ᵗʰ century

account of the dialect of Edinburgh by Ellis (1889). Ellis notes that his informant, *nota bene* 'an educated bi-lingual Edinburgh speaker' (Ellis 1889: 35-36), uses /o/ in items like *Jock*, *corner*, *body*, *daughter*, whereas /ɔ/ is found in *old*, *going*, *crow*.

As for /oː/, the remaining non-high back vowel given in (1), the difference in its present realisation in SSE and SSBE is a result of the failure of the diphthongisation from the 18th century, on which more shortly. As in the case of many other vowels the presence of /oː/ in SSE, in many of its instances, is not a native Scottish development. In Southern English between the 12th and the 13th century the vowel /aː/ was retracted, raised and rounded to an object whose approximate quality was /ɔː/ and which subsequently attained the quality of /oː/. Apparently (see e.g. Aitken (2002)) the /aː/ raising and rounding did not affect Scots and Northern English (NE) dialects, which retained the original unrounded vowel. Scots and NE /aː/ followed the development of front vowels, the relevant history of which will be addressed in the following paragraphs. The presence of /oː/ in all dialects of English in lexical items like *coat* or *rose* is due to the 13th-century massive injection of Old French vocabulary. The same vowel in SSE items of Old English origin like *home* and its non raised counterpart in words like *hot* and *more* is an adaptation from Southern English.[2]

Passing on to the front non-low monophthongs, it may be said that their inventory is more impressive in SSE than in SSBE. Apart from Aitken's vowel, which does not form part of the basic inventory, SSE has /i/, whose length is context-dependent in all dialects, and invariably short /ɪ/, a borrowing from SSBE. The two other front non-low vowels are /eː/ (e.g. *late*), the shape of which is assigned to the non-occurrence of the 18th-century diphthongisation, and /ɛ/ (e.g. *let*), a lowered continuation of Middle English /e/. As far as /eː/ is considered, it is much more abundant in Scots than in SSE and SSBE due to the lack of the 12th-to-13th-century raising and rounding of pre-Scots /aː/. In the course of the Great Vowel Shift /aː/ was raised to /eː/ enriching the stock of lexical items containing this vowel. As opposed to SSE, the Scots language has /he(ː)m/ for *home* and /he(ː)l/ for *whole*.

To complete the discussion on SSE monophthongs, one needs to reflect upon the centralised vowels found in Scotland and in the south. Both varieties discussed here have the central reduced vowel /ə/ that had been replacing original vowels in unstressed positions from Old English till the 18th century (see Lass CHEL III 3.6.4). In SSE, however, the realisation of the reduced vowel varies. It is sometimes realised as /ə/ but /ʌ/ and /ɪ/ are also heard, even within one and the same speaker.

One of the discrepancies between SSBE and SSE central vowels is that the former, but not the latter, contains what may be regarded as the long version of /ʌ/ in its inventory. Its development in SSBE is believed to have had two stages. The words to the shape of *bird* and *burst* developed the same vocalic object in the late 16th century. The words with /er/ sequence, like *certain*, joined them in the middle of the 17th century thus completing what Wells (1982) labels as the NURSE merger (the item that the three vowels developed was pronounced as /ʌ/ before it was turned into /əː/ or /ɜː/).[3] Significantly enough, the NURSE merger was incomplete in the regions where SSE is now used. Presently, more prestigious dialects of SSE are characterised by a threefold distinction before /r/ in stressed syllables in words where SSBE has /ɜː/ and General American has /ɚ/. Words like *pert*, *bird* and *hurt* are pronounced with original /er/, /ɪr/ and /ʌr/ respectively. This, along with the fact that SSE is a rhotic dialect, makes the Scottish variety one of the most intelligible dialects of modern English (see Ford 2004 for details).

The sound /ʌ/ found in words like *cut* or *flood* arose in Southern English in the middle of the 17th century in the process of the lowering and unrounding of /ʊ/ (sometimes /u/) and /o/ (see Lass CHEL III 3.4.1.3, although Jones (2006) suggests the first half of the 18th century as the time of the main shift). This process had different scope in different regions of the Isles. In some dialects, especially those spoken in the Midlands, but also in Hiberno-English, the lowering and unrounding have never been operative. The place of Scots in the continuum is on the opposite extreme to that occupied by the Midland varieties, in that it has the most impressive number of instances of /ʌ/. According to Aitken (2002), the replacement of /ʊ/ with /ʌ/ in Scots was incomplete even as late as in the 18th century. On the basis of Alexaner Scot's 1779 work 'The Contrast', which is a critical look at the obsolete features of Scottish English pronunciation, Aitken concludes that the last /ʊ/'s affected by lowering and unrounding were the ones in the vicinity of labials and nasals like in <*oonlas*> for *unless* and <*boot*> for *but*. The situation of SSE, however, is nothing like that of Scots. Whereas in the latter the process of /ʊ/-lowering and unrounding was virtually complete, the former retains the high, rounded vowel in the items where SSBE has /ʊ/. The only difference between the southern variety and SSE is the lack of contrast between /ʊ/ and /u/. As a result vocabulary items like *pull* and *pool* are homophones in SSE. This state of affairs could be assigned to the absence of the centralisation of /u/ to /ʊ/ which took place in SSBE in the first half of the 17th century and be treated as one of the first processes that left a trace in

SSBE but whose effects are not observed in the Scottish standard (see the end of this section for other such examples). However, Aitken (2002) treats the short high back vowel as centralised in Scots as far back as in the 14th century, although does not produce any argument in favour of this choice.[4] At a closer investigation the 18th and 19th century history of high back Scottish vowels appears to be extremely complicated. First of all, many items that had long /uː/ in London English show short lowered realisations in the 18th century Scots/SSE. Examples are *move* or *prove* realised with /ʌ/ or /ɤ/. On the other hand, the items pronounced with either short /ʊ/ or /ʌ/ in Standard English, like *dove*, *oven*, *covet* are pronounced with a very high /o/ or even /u/. Interestingly enough, Douglas claims that Scots pronounced the word *above* with a lengthened labial vowel and '...make *above* rhyme with *groove*.' (Jones 1991: 159). James Elphinston (1787: 4,10) reports on the fact that the Scottish often pronounce words that contain the sequence /ju/ as plain /u/ (e.g. in *curious*) but insert the liquid in items like *book* and generally '...nevver prefix the liquefier, but hwere dhey shood not.' The tendency to exchange /u/ with /ju/ is said to have been attested as late as in the 20's of the 20th century (see Wilson 1926).

3.2.2. Diphthongs

As can be observed in (1), the set of SSBE diphthongs comprises more sounds than the SSE inventory. The differences in the number and quality of SSE and SSBE diphthongs may be said to be more easily traceable than the differences found in the subsystems of monophthongs. Nevertheless, even here some distributions have to remain unexplained.

The diphthong (1c) is found in both varieties. It is the only diphthong that has not been inherited by modern English dialects from the Old English vowels (Mercian and West-Saxon in the case of SSBE and Old Northumbrian for SSE). /ɔi/, as in *joy*, *choice*, was borrowed from Central French in the 12th or 13th century and coexisted along with Anglo-Norman and Dutch /ui/, as in *join*, *buoy* or *poison*. In the late 17th century the /u/ in the latter diphthong underwent the process of lowering and unrounding analogous to the lowering and unrounding of /ʊ/. According to Lass (CHEL 3.4.2.6), the pronunciation of words like *join*, or *poison* with /ʌi/ was popular until the end of the 18th century, when it was replaced by /ɔi/ in SSBE and, presumably later, in SSE. In Scots, however, where the process of /ʊ/ unrounding and lowering was highly productive and its effects long-lasting, the /ui/ diphthong gave rise to /ʌi/ enriching the set of the sources of the /ʌi/ diphthong.

The diphthongs /aɪ/, /aʊ/ and /aːi~ʌi/, /au/ presented in (1d), at least in the vast majority of their modern instances, became parts of the vocalic inventory of the English language due to the working of the Great Vowel Shift (GVS). The GVS was one of the most important and productive changes in the history of English. What should probably be viewed as a natural consequence of those properties of GVS is that it is also one of the most controversial and hotly debated processes (see Jespersen 1909, Luick 1914, Wolfe 1972, Stockwell and Minkova 1988, Lass 1999). In this book I will try not to take any particular stance as to what GVS was and how its particular stages should be related to each other. That is, I will not be preoccupied with such questions as how the relevant sound change(s) originated or what the role of lexical diffusion or the fear of merger was in the development of the process. Neither will I attempt to seek the putative naturalness of the process. I would rather like to make the reader acquainted with which aspects of GVS could be or are particularly relevant to the development of SSE vocalic system and to its present day shape and, in particular, which changes can be shown to have interacted with the Scottish Vowel Length Rule giving birth to the sound system of SSE. In this and the following section I would like to elaborate on certain preliminary facts concerning the working of GVS in the South and North of Britain while the exact detail of the impact of GVS on the vocalic system of SSE and the interaction between the shift and the Scottish Vowel Length Rule will be the subject of chapter 3 of this work.

GVS is believed to have started in the late 14th century and, at first, affected the vowels in the dialects in the north of England and Scotland. By the beginning of the 16th century the ME /iː/ and /uː/ were pronounced as /ei/ and /ou/ respectively. The full shift to /aɪ/ and /aʊ/ was not completed in the South before the mid-18th century. It is believed among some linguists that the diphthongisation was a reaction by the system to a different change, also listed under the name of GVS. Here I mean the rising of ME /eː/ and /oː/ to /iː/ and /uː/ respectively. When this change had occurred, the language diphthongised /iː/ and /uː/, allegedly in order to avoid the merger of pre- and post-GVS high vowels (see Luick 1914, Lass CHEL III 3.3.3.1). However, the presence of /au/ in SSE should not be seen as a result of the working of GVS in Scotland. Due to a much earlier development (according to Lass CHEL II 2.2.3.4 and McClure CHEL V 2.3.1 early 14th century, according to Johnston EHSL 3.3.1.2 and Aitken 2002 late 13th century) often referred to as the /o/-fronting, the presence of /oː/ in the 15th-century Scots was much less abundant than in e.g. Southern English at that time. ME /oː/ is said to have developed into a front vowel /ɸː/ in the northern dialects of English (encompassing Scots, Northumbrian

and, perhaps, West Yorkshire as well as the north-west Midlands). As a result, there was no fear of merger between the pre-GVS /uː/ and the post-GVS vowel of the same quality in Scots and no diphthongisation. Nowadays, the panoply of lexical items that possess /aʊ/ in SSBE and /au/ in SSE are pronounced with /u(ː)/, or rather a centralised /ʉ(ː)/, in Scots. The examples at hand are items as frequent as /hʉs/ for *house* and /ʉːr/ for *our*. Those facts explain why the behaviour of /au/ with respect to the Scottish Vowel Length Rule is different from the behaviour of its etymological peer /ai/ and render it rather clear that the presence of /au/ in SSE in words in which Scots has /ʉː/ is yet another result of the influence of SSBE on the variety spoken in Scotland.

As for the centring diphthongs found in (1e), they are the result of the breaking of monophthongs before /r/[5] and subsequent /r/-dropping that constitute one of the major, divisions in English dialectology, splitting the accents of English into rhotic and non-rhotic.[6] In his book published in 1791 John Walker related: 'But if the letter [<r>] is too forcibly pronounced in Ireland, it is often too feebly sounded in England, and particularly in London, where it is sometimes entirely sunk.' According to e.g. Wełna (1978) and Lass (CHEL III 3.4.3.2) the signs of breaking were visible as early as in the 15th century. They also date the /r/-weakening and dropping to the period between the middle of the 17th century and 1800. The dearth of the centring diphthongs in SSE comes as no surprise as soon as one acknowledges the fact that neither breaking, which produces words like /peərənt/ *parent* or /tʃeəri/ *chary*, nor /r/-dropping, rendering /keə/ *care*, /ljuə/ *lure* or /bɪə/ *beer*, were operative in Scotland.

The last pair of diphthongs, found in (1f), is a result of the diphthongisation process that affected the southern English in the 18th century. From Wełna's (1978) and MacMahon's (CHEL IV 5.8) comments it may be assumed that the two processes were parallel and characterised by a covert prestige before their effects were recognised by the educated speakers. This was not the case before the beginning of the following century and, according to MacMahon, the monophthongal realisation (/oː/) could be heard well into the 19th century. As was the situation with the breaking and /r/-dropping, the /eː/ to /eɪ/ and /oː/ to /oʊ/ (and later to /əʊ/) change was inoperative in Scotland. Hence, SSE retains the 17th-century system with additional mid vowels present in lexical items like *late* or *boat*.

To summarise this part of the discussion of the SSE internal history, I would like to pose the question of whether it is in fact possible to estimate when the isolation of SSE as a separate accent of English (not part of SSBE or Scots) took place. The socio-political factors seem to indicate

that the beginning of the 17th century as the time of the origin of SSE. However, to talk about Scottish Standard English as a separate linguistic entity we need to invoke some tangible phonological features that could characterise it. That is, we need to find a phonological process or, better still, a set of processes found in SSE and absent from SSBE and Scots or *vice versa* and trace back the earliest of them. Pre-/r/-breaking and /r/-dropping, the first major changes that, although operative in SSBE, have never taken place in Scotland, were underway in the second half of the 16th century and the 17th and 18th century respectively. The beginning of the 17th century as the date the emancipation of SSE as a variety distinct from SSBE is also confirmed by the date of the origin of differences in the quantitative properties of both idioms, which in Scotland are defined by the working of the so called Aitken's Law, the details of which are discussed in the sections to come. However, Scots and SSE are not different with respect to the three processes mentioned above. To the extent that Scots has been a different variety from SSE, a fact confirmed by the overwhelming majority of authors commenting on the linguistic situation in Scotland from Robertson (1722) to Durand (2004), the roots of the separation of SSE from Scots may be also sought for in the history of the two varieties. It appears that one of the most widely quoted differences between Scots and SSE also comes in handy here. As has been mentioned above, the dialects of Scots lack the diphthongised version of the pre-GVS /uː/ and retain the high back or central rounded monophthong. From the reports of the 18th-century observers e.g. Douglas, the realisation of the diphthongised reflex of ME /uː/ has high-mid first part, i.e. it is realised as /ou/. Crucially, this realisation had no longer been used in SSBE in the late 18th century where the only realisations were /ʌʊ/ or /ɒʊ/ (see Lass CHEL 3.4.2.5). John Jones notes as early as in (1701) that the realisation of the sound in *now*, *cow*, *bough* in the South encompasses the sound found in *but*, *cut*, *son* as the first part of the diphthong. Jones (2006) quotes several sources that suggest the low and back realisation of the onset of the diphthong in the late-18th-century SSBE. To the extent that /ou/ was a borrowing from SSBE, it must have been an early borrowing: the /ou/ realisation of ME /uː/ in Southern English shifted to /ɔu/ and later /əu/ and /ɜu/ by the second half of the 17th century. Keeping in mind the confusion between /o/ and /ɔ/ attested in the 18th and the 19th century Scotland (see above), one can assume that the first intake of the /ou/ took place in the late 16th or the early 17th century. Later SSE /ou/ did not follow the development as the same object in SSBE. Or, to be more precise, did not follow it at the same pace, as nowadays the realisation of the reflex of the pre-GVS /uː/ is /ʌu/ in what may be called the major SSE accents. Murray

(1873) details that the 19th-century realisation of the diphthong is the south of Scotland was /ʌu/ as opposed to central Scots /u(ː)/. Jones (2006: 328-329) quotes accounts from the first half of the 19th century according to which some speakers of SSBE realised the first 'mora' of the /ʌʊ/ diphthong as /a~ɑ/ in *father*, a realisation, to the best of my knowledge, unheard in Scotland at that time. Another piece of evidence pointing to the first half of the 17th century as the approximate time of the development of SSE is the quality of low back short vowels in SSE, SSBE and Scots. Recall that the quality of that object is /o/ in many Scots dialects, /ɒ/ in SSBE and /ɔ/ in SSE. Recall also that /ɒ/ developed in SSBE from /o/ through an intermediate /ɔ/, the quality which it attained in the late 16th century and lowered further to a full open vowel in the middle of the 17th century. It may be argued that the presence of /ɔ/ in SSE is due to the lowering of ME /o/ and that only the first part of the shift was operative in the speech of the Scottish upper class. Although the picture is further blurred by the confusion between /o/ and /ɔ/ in the 18th century Scotland, Aitken (1981b) recognises the presence of /ɔ/ in some dialects of Scots as an influence from Southern English.

Now, as far as the presence of different sounds in a given variety with its simultaneous absence in another variety is a piece of evidence bearing out the separate development of two varieties, we have just established that SSE and SSBE and SSE and Scots ceased to function as the same accents approximately in the first half of the 17th century. It is then that the SSBE reflex of ME /uː/ and /o/ attained the approximate value of /əʊ/ and /ɒ/ while the SSE descendants of the same sounds remained an /ou/ and /ɔ/. This however, does not mean that the two dialects ceased to develop in the same direction, SSE continuing to be heavily influenced by the southern variety.

3.3. Vowel quantity in SSE

Although various opposing theoretical analyses of the vocalic length in English have been on the market (see SPE, Halle 1977, Halle and Mohanan 1985, McMahon 2000, Durand 2005, Backley 2010), the observation that the words *pool*, *naught* and *lead* possess long vowels as opposed to *pull*, *not* or *lid*, the vowels of which are short, is the established textbook assumption. All but one accents of English possess this kind of phonemic quantity distinction in their systems. The notable exception to this pattern is Standard Scottish English.[7] In SSE certain vowels are invariably long, some are long only in relevant contexts, while others remain short irrespective of the environment they are located in. The label

used in the literature to describe the distribution of long vowels in SSE (and Scots) is the Scottish Vowel Length Rule (SVLR) or Aitken's Law. The remainder of this chapter will discuss the dating and the actual working of the rule.

3.3.1. The placement of SVLR in the history of SSE

As is the case with almost all long established diachronic changes, the exact dating of SVLR has never been and probably will never be uncontroversial. However, as I will show below, various pieces of evidence make it possible to establish a relatively accurate dating of the working of the rule. On the other hand, and most unfortunately, what will be quoted below as the historical SVLR is, at best, an approximation and it is not easy to establish its relation to the synchronic phenomenon that figures in the literature under the same name. To be precise, the number of vowels that underwent SVLR historically (see chapter 3) is radically different from the number confirmed by modern instrumental measurements (e.g. McKenna 1988, Scobbie *et al.* 1999 a/b, Pukli 2006) as well as from the input inventory established on the basis of the 18th-century sources. In the paragraphs to follow I will focus on the dating of SVLR in the history of Scots and SSE while the nature of the diachronic SVLR will be investigated in chapter 3 of this work.

McMahon (2000) repeats the claim made by Lass (1974), according to whom SVLR had two historical stages.

(2) The stages of the historical SVLR according to Lass (1974: 320):

> a) all long vowels were shortened in all
>   contexts except before /v, ð, z, ʒ, r/
>   and word finally

> b) non-high short vowels /a, ɛ, ɔ/ were
>   lengthened in the same context.

The change presented in (2) transformed Scots from the system that, as all accents of English, relied on contrasts in vocalic length into a system in which quantity was largely predictable. Aitken (2002: 123-124) maintains that the panoply of the changes subsumed under the label of GVS as well as the earlier fronting of /oː/ made the quantity contrast among the 16th-century Scots vowels no longer functional thus allowing for the reduction of vowel length to a predictable phonetic property. Whether this claim is

correct or whether it is possible to generalise it on vowel systems of other dialects of English or the systems of other languages or, last but not least, whether it can be consistently applied as a driving force behind the evolution of SSE and Scots is rather questionable. Surely, it was not Aitken's ambition to suggest a general theory of the causality of sound changes. What we are sure of is that whatever the origin of the change in question was, the systems of contemporary SSE and Scots show radically different quantitative properties from those characteristic of all other accents of the English language.

As to the time when SSE and Scots started showing these different properties, McMahon mentions three authoritative works. These are Lass (1976), who dates SVLR on the 17th century, McClure (1977), who sees it as the change that affected Scots in the 16th century and Aitken (1981b), according to whom SVLR took place as early as in the 15th century. McMahon herself produces arguments that suggest that the late or mid 16th century was the period when SVLR operated. Those arguments encompass the possible interaction of SVLR with GVS and /ʊ/-unrounding as well as orthoepic evidence that confirms the relatively early dating of SVLR.

McMahon (2000) claims that the main part of SVLR must have worked after the final stages of GVS (which ended probably around 1550 in the North), as only by that time had the reflexes of the pre-GVS /ɛː/ and /aː/ shifted to /iː/ and /eː/ producing reflexes in /miːt/ *meat* and /leːt/ *late* the former of which has a short vowel in all dialects of SSE and Scots due to the working of Aitken's Law. Had the opposite been true, the vowels which went through intermediate stages, would have been short and, hence, ineligible for raising. The same argument is produced for /oː/, which emerged from /ɔː/ in the final stages of GVS. This fact allows McMahon to suggest that Aitken's Law did not operate before 1550. Although McMahon is largely right about the completeness of the shifts of non-high Middle Scots vowels, Aitken (2002) points to several lexical items with Middle Scots /aː/ that created doublets with short /ɛ/ and /e/. He suggests that the items with /ɛ/ like /ɡɛm/ for *game* are the effect of the lagging of the low vowel at the /ɛː/ stage in some conservative varieties of Scots.[8]

As far as the argument about the long mid vowels is considered, it is hardly convincing if it does not have any support from historical sources. Synchronically there is little evidence for the participation in SVLR of other than high monophthongs in SVLR in SSE. Thus, it is possible (for some accents at least) that the /eː/ reflexes of /ɛː/ might have appeared in all environments even after the SVLR initiated and become subject to it only after they attained the fully high quality found today. The interaction