CHAPTER 1

Introduction

1.1 Chain-shifts

Few linguistic phenomena capture the imagination like chain-shifts. Chain-shifts refer to linguistic changes that involve at least two consecutive changes, which are seen to be interrelated: essentially, A > B > C (Jespersen 1909; Luick 1914–40; Martinet 1952, 1955; Wells 1982: 97–101; Labov 1994). If stage 1 is B > C and stage 2 is A > B, there is a 'drag-chain', by which the vacated B-slot has pulled A into its place. If the first stage is A > B and the second is B > C, there is a 'push-chain', by which A has pushed B out of its slot. The metaphors 'drag-chain' and 'push-chain' are thus merely descriptive labels and their existence is open to empirical testing. Chain-shifts may also be observed within semantics and morphology, but the term is most commonly used about phonological change. The reason may be that sound-shifts involve phonemes, the smallest contrastive units of language, and are both more easily observed and more easily divided into discrete stages than for instance semantic shifts, which require a linguistic context to be identified.

Why do chain-shifts occur? Proposed explanations virtually always refer to the phonological systems in which the changes take place, because the rationale behind chain-shifts seems to be the maintenance of functional contrasts, that is phonemes. Push-chains are believed to occur in order to avoid merger of previously separate phonemes; thus, explanations for push-chains are typically functional and teleological (Samuels 1972). In a drag-chain, however, there is no danger of loss of phonemes; therefore, explanations usually invoke the principle of equal phonetic/perceptual spacing between phonemes (Luick 1932; Martinet 1955; Liljencrants and Lindblom 1972; Ladefoged 1982: 236), or that of maximising acoustic contrasts (Wells 1982: 97–98), or principles of universal phonology, for example that the high-vowel slots must be filled (Crothers 1978; Stockwell and Minkova 1988a: 367–368; but see Lass 1988: 399–400).

There are problems associated with most explanations put forward for chain-shifts. First, functional explanations seem to be teleological, suggesting that languages in a sense know where they are heading and hence resort to chain-shifts to avoid mergers. But such a suggestion is counter-intuitive and illogical (Lass 1997: 300–303; Bermúdez-Otero 1998: 180–183); rather, it could be that the speakers of a language have a subconscious 'feel' for the system of functional contrasts, and wish to uphold this system (Stockwell and Minkova 1988a: 365), cf. the principle of equal spacing between contrastive elements. However, neither phonemic mergers nor phonemic splits are rare in the history of languages; thus, phonemic systems are hardly fixed entities, and no chain-shift or other sound-change is ever *necessary* (for instance, in the 'Canadian Shift', the LOT-THOUGHT merger has in fact traditionally been held to *trigger* the shift, cf. Durian and Gordon 2011).

The third alternative, that changes in a shift may be simultaneous, constitutes a second problem, because it leaves open the possibility that the changes in a perceived chain cannot be accounted for as a simple push-chain or drag-chain. The fact that it is frequently difficult to determine whether even ongoing chain-shifts constitute push-chains or drag-chains suggests (1) that allophonic variation is greater at any given point in time than is often acknowledged, with a great deal of overlap, and (2) that the terms are too simplistic to capture the reality of sound-change (Frankis 1986: 135). Wells (1982: 98–99) and McCarthy (2010b) both describe PDE chain-shifts in which the constituent parts appear to be simultaneous.

A third problem is the fact that the labels themselves ('push-chains' and 'drag-chains') are often seen as sufficient to explain the changes they purport to describe. In other words, if it is determined that a given chain-shift started with the change A > B, and therefore constitutes a push-chain, this is deemed sufficient to explain the chain-shift also. Related to this is a fourth problem, namely that the explanations offered refer solely to the phonology of a language, or to language typology, rather than seeing all sound-change as having phonetic (*viz.* articulatory, perceptual, prosodic, physiological) bases. Besides, typological universals (if indeed they are universal) do not constitute explanations, but rather require explanations themselves. Instead of merely working out typological accounts of shifts, the linguist ought to ask questions such as (1) What *types* of sound-changes occur and recur (in chain-shifts)?, (2) What *phonetic* bases may be identified for these recurring sound-changes?, and (3) *Why* do these types of sound-change recur? I will attempt to answer questions

(2) and (3) in the concluding chapter, after I have assessed the spelling evidence for ME long-vowel shifts and determined the answers to question (1) in Chapters 2–8.

A fifth problem has to do with the theoretical frameworks used to provide the most suitable model for chain-shifts. For instance, Optimality Theory uses contraints rankings to determine the course of change, and the winning ranking is the one that gives the expected output; this is circular, however, in that the output is known *a priori* and is exactly what the constraints and the rankings are supposed to capture. A case in point is Łubowicz, who addresses 'the typology of chain shift mappings in the context of various theoretical proposals' (2011: 1718). Even if she allows diachronic drag-chains, she questions 'whether pull shifts are possible synchronically' because they 'are not admitted under any of the theoretical proposals' she examines (2011: 1720). This is putting the cart before the horse: Drag-chains and pull-chains are descriptive labels and open to empirical observation; if the theories cannot account for them, the conclusion is not that such changes cannot happen, but that there is something wrong with the theory. Łubowicz claims that *diachronic* drag-chains 'are different, as they can be seen as different processes that apply at different stages in the development of the language' (2011: 1728), but it is unclear why this cannot apply to synchronic drag-chains also.

1.2 Topics and aims

1.2.1 Middle English long-vowel change

This work is concerned with a number of changes in long-vowel pronunciation that took place between *c.* 1050 and 1700. There is general consensus among scholars as to the phonetic nature of the OE vowels (Quirk and Wrenn 1990; Mitchell and Robinson 1992: §§7–8; Sweet 1992: §2). A comparison between the OE realisations and that of their modern reflexes reveals great differences, especially regarding long vowels. In other words, it is clear that changes must have happened to the pronunciation of long vowels sometime between OE and PDE. Traditionally, these changes have been assigned to two separate groups.

The first group consists of four lOE or eME changes, namely (a) the unrounding and/or lowering of OE *ȳ* to [i:] or [e:]; (b) the monophthongisation and subsequent unrounding of OE *ēo* to [ø:] > [e:]; (c) the backing, rounding, and raising of eME *ā* to [ɔ:], which took place in the dialects south of the Humber; and (d) the fronting and raising of eME

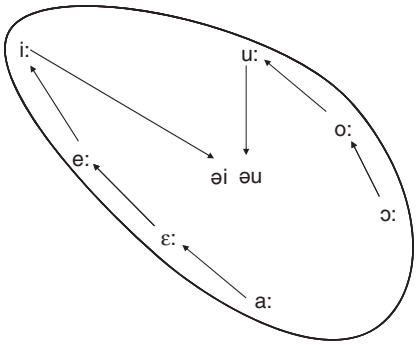

Figure 1.1 The 'Great Vowel Shift', early stage.

ǭ [o:] to [ʉ:], which took place north of the Humber.[1] Changes (c) and (d) are assumed to have been completed before 1350.

The second set of changes is usually collectively referred to as 'the Great Vowel Shift' (GVS), and denotes a vocalic restructuring whereby the eME non-close vowels *ē, ę̄, ō, ǭ* and lME *ā* were raised one height to [i:], [e:], [u:], [o:], [æ:] respectively, and the close vowels *ī* and *ū* were diphthongised, first to [ɪi] and [ʊu], later to [əi] and [əu]. Through later changes, the [e:] (< ME *ę̄*) was further raised to [i:] in most words in StE, but diphthongised to [eɪ] in a few words (*yea, break, steak, great*); the [æ:] (< lME *ā*) was raised to [e:] and then diphthongised to [eɪ]; and the [o:] (< ME *ǭ* < OE *ā*) was diphthongised to [oʊ] (and eventually to /əʊ/ in RP). The 'GVS' is generally held to have begun around 1400 and to have been completed *c.* 1750; the following vowel diagrams capture the stages of the 'GVS' (Figures 1.1 and 1.2); the shape of the articulatory vowel space follows Prokosch (1939: 97–98) and Labov (1994: 256–261).

Table 1.1 gives an overview of long-vowel changes in the ME and eModE periods. No attempt has been made to date the changes exactly or to indicate the internal chronology. The term 'eME *ī*' includes the reflexes of OE *ī, ȳ, ēog/ēoh, ēag/ēah, iht, yht, eoht, eaht*, and OE *i/y* in lengthening contexts; 'eME *ū*' includes the reflexes of OE *ū*, OE *u* in lengthening contexts, and OE *ōg/og*; 'eME *ę̄*' is generally the reflex of OE *ǣ*; 'eME *ǭ*' is generally the reflex of OE *ā* (south of the Humber); and 'ME *ā*' is the product of Middle English Open Syllable Lengthening (MEOSL). A dash indicates no further change.

Anglicists in the nineteenth century soon came to regard the changes of the second group as being somehow interrelated and interdependent, that is, they were part of a chain-shift. Most notable among these linguists

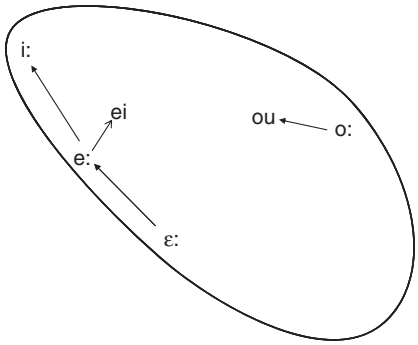

Figure 1.2 The 'Great Vowel Shift', late stage.

Table 1.1 *Middle English and Modern English long-vowel changes*

eME	ME	eModE	PDE	Examples
ī [i:]	[ɪi]	[əi]	/aɪ/	*white, sty, bind, night, bright*
ū [u:]	[ʊu]	[əu]	/aʊ/	*brown, pound, fowl, bough*
ē [e:]	[i:]	–	/i:/	*green, see, teeth*
ō [o:]	[u:]	–	/u:/	*tooth, tool, moon*
e̯ [ɛ:]	[e:]	[i:] or [eɪ]	/i:/ or /eɪ/	*deal, sea*; *great, steak*
o̯ [ɔ:]	[o:]	[oʊ]	/əʊ/ (RP), /oʊ/ (GA)	*home, stone, boat*
ā [a:]	[æ:]	[ɛ:] → [eɪ]	/eɪ/	*lady, take*

are Jespersen and Luick. Jespersen named it 'die groβe Vokalverschiebung' (1909: 231). At first, he no doubt coined this phrase to serve as a conceptual map, or some kind of mental shorthand, which was useful as a way of organising the material and for getting a mental grip of the nature of these changes. The English translation of this phrase, 'the Great Vowel Shift', was soon adopted by other linguists. Jespersen also presented the changes in terms of a diagram (1909: 232; the raised dot is Jespersen's symbol for vowel-length) (see Figure 1.3).

However, although there may have been no idea of a process involved in this concept of 'the Great Vowel Shift' at first, it was soon reified: the concept itself acquired near-factual status. That is, the capitalised vowel shift was conceived of as a unitary event with its own inner coherence, which needed a special kind of explanation. The question soon turned to which vowel(s) moved first, and whether this initial change triggered a push-chain or drag-chain. What is more, the shift was considered unique

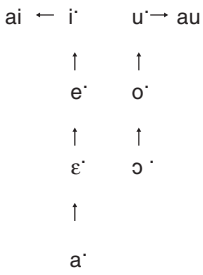

Figure 1.3 Jespersen's representation of the Great Vowel Shift (1909: 232).

to English. This view of the 'GVS' has been challenged, most notably by Stockwell since the early 1960s, and by Stockwell and Minkova (1988a, 1988b, 1997). It is the contention of this book, in agreement with Stockwell and Minkova and many other scholars, that the concept of a 'GVS' as a unitary event is illusory, that the changes started earlier than has been assumed, and that the changes of both the sets mentioned above took longer to be completed than most handbooks claim.

Evidence for these vocalic changes is found in (a) previous stages of English, (b) the sound system of PDE, (c) comparative material from other Gmc languages, (d) spellings, (e) rhymes, and (f) 'eyewitness' accounts by sixteenth- and seventeenth-century orthoepists. Each of these is treated below.

On the correspondences between spellings and phonetic value, Campbell observes that 'our knowledge of the sounds of a dead language can never be more than approximate' (1959: §31). Further (1959: §31),

> The following reconstruction of the phonetic system of Old English is based on the probable value of the symbols when they are used to write Latin of the same period, and upon reasonable deductions from the history of the sounds both in Germanic and in the later periods of English.

Thus, the sound correspondences of the OE vowel letters are relatively transparent. When these sound values are compared to the PDE vowels on an etymological basis, it is clear that the phonetic realisations of long vowels changed at some point in time. Further evidence for the initial sound value of OE vowel symbols is found in other Gmc languages: PrGmc *ī* is still realised as /iː/ in Danish and Norwegian (e.g. Norw. *hvit* /ʋiːt/ 'white'); PrGmc *ū* is still realised as /uː/ in Danish (e.g. *hus* /huːs/ 'house'); and PrGmc *ē* still has the sound value /eː/ in Norwegian, Danish, and Swedish (e.g. Norw. *se* /seː/ 'see').

Spellings and rhymes provide a different kind of evidence, especially when they depart from traditional orthography. Such evidence, along with its status as proof of sound-change, is treated in detail in Section 1.5. After the rise of StE in the fifteenth century and the introduction of the printing press in 1476, there arose a need for a uniform spelling. The press entailed mass production of texts, so that the variety of spelling shown by a manuscript (MS) corpus inevitably disappeared. But consistency within the typesetting was another matter. Consequently, from *c.* 1530 onwards, numerous orthoepistical works on the 'right' spelling and pronunciation were published. Much information about the pronunciation of English can be gleaned from such works, but they are generally too late to offer any insights on the initial stages of the 'GVS', and even less on the earlier set of changes; they do sometimes provide confirmation of changes that have already happened or are taking place in the authors' own dialects. Evidence from the early orthoepists has been used in this work to cast light on the later stages of the long-vowel shifts examined here.

1.2.2 Previous research on the 'Great Vowel Shift'

This section gives a brief survey of research on the 'GVS'; previous research on each individual vowel is dealt with in the relevant chapters. Following Luick (1896, 1899, 1901, 1912, 1914–40, 1932) and Jespersen (1909), who were among the first to see these changes as a set of interdependent changes, most handbooks present the 'GVS' as an event which needs to be explained (e.g. Algeo and Pyles 2005). According to Wolfe (1972), questions regarding the shift can be grouped into five categories: (1) *how* questions, (2) *what* questions, (3) *why* questions, (4) *where* questions, and (5) *when* questions.

What questions seek to establish exactly what happened at the phonetic or sub-phonemic level during the 'GVS'. For example, the diphthongs that developed from eME *ī* and *ū* pre-suppose that a glide vowel must have developed before the original vocalic nucleus, and there is general consensus that the first stage would have entailed the formation of minimal diphthongs, [ɪi] and [ʊ̄u]. *What* questions then try to identify the later development of these minimal diphthongs, producing PDE [aɪ] and [aʊ̄]: for instance, the on-glide may have centralised to [ə] and then 'dropped down' in vocalic space, or the on-glide may have been front [e], which lowered along a front path. The answer to this may be crucial in determining why the diphthongised reflex of etymological *ī* did not merge with the etymological diphthong [ei].[2] Such 'near-mergers' have attracted

attention from, for example, Kökeritz (1932), Orton (1933), Stockwell (1978), and Labov (1994).

How questions try to ascertain by what stages the 'GVS' came about; three basic views have been put forward. The first states that the close vowels diphthongised first, leaving a void in the close front and back position, and pulling the other long vowels up to fill consecutively vacant vowel slots, in a drag-chain process. The second position holds that the half-close vowels *ē* and *ō* moved first, forcing the close vowels *ī* and *ū* to diphthongise in order to avoid merger, in a push-chain process. The third suggests that all the 'GVS' changes were more or less simultaneous. Naturally, such questions are related to *when*-type questions (see following text). Luick was the first scholar to present arguments and evidence for a push-chain (although he did not invoke any such metaphor; Luick 1914–40: §479). An examination of the northern dialects of England provided his basis for concluding thus: in some northern dialects, eME *ū* did not diphthongise; in the same dialects, OE *ō* had previously been fronted and raised to *ȳ*; and eME *ī* seems to have diphthongised earlier than in the southern dialects. Luick clearly saw a causal relationship between these changes. His push-chain theory was rejected by Jespersen, who postulated a drag-chain, and claimed that the northern evidence could be interpreted the other way round (Jespersen 1909: 233):

> But the nexus may be equally well established the other way: after /iː/ and /uː/ had been diphthongized, there was nothing to hinder /eː/ and /oː/ from moving upwards and becoming /iː/ and /uː/; where /uː/ subsisted, /oː/ was not allowed to move upwards.

Strang (1970: §§101–4) offers arguments in favour of both views, whereas Western (1912) maintains that the changes of the 'GVS' were simultaneous. What these scholars have in common is that they all regard the changes as connected and systemic, and they see the 'GVS' as caused by language-internal factors, that is, by some 'drift' or tendency within the language itself (Luick 1914–40 II: 449). Crucial to any such 'conspiracy' view is the 'displacement theory' (so named by Stockwell and Minkova 1988a: 365), first presented by Luick (1932), which states that native speakers have a subconscious feel for the phonetic distance between phonemes, and that they tend to want to preserve that distance. In other words, if one phoneme were to move in phonological space, the other phonemes would move as well, in an attempt to (1) avoid merger and (2) 'remedy' the imbalance caused by the first change. It is claimed that since merger results in the loss of at least one distinctive phoneme and also in

homonymy – which, it is assumed, is detrimental to communication – it is therefore avoided (Luick 1896: 315; but see Ringgaard 1982). Against such views it may be argued, (a) that merger between the reflexes of OE *ē* and *ǣ* in fact *did* take place in the 'GVS' itself; (b) that Strang (1980) has shown that the average number of meanings for any English word is roughly four, and that homonymy thus does not impair efficiency of communication; (c) that vowel systems are rarely symmetrical; and (d) if changes cause an 'imbalance' in the system, and must be remedied, it is difficult to understand why they happened in the first place.

Linguists who pose *why* questions attempt to find *explanations* or *causes* of vocalic chain-shifts of the type seen in the 'GVS', and in so doing, they have investigated (a) prosodic factors (Samuels 1972, Jordan 1968, Johnston 1992), (b) functional causes (Samuels 1972), (c) system-internal causes (Jespersen 1909, Luick 1914–40), (d) socio-linguistic factors (Labov 1994), and (e) typological issues (Donegan 1985, Donegan *unpubl.*). Tendencies discovered in related languages, as well as general principles of sound-change established by modern linguistics, are key in framing and finding answers to these questions. For instance, work carried out by Labov (1994) on chain-shifts of various kinds suggests that in Gmc languages, long vowels tend (1) to be raised, (2) to be fronted, and (3) to diphthongise, but not to be lowered or backed, except in combinative changes (i.e. changes conditioned by the phonetic context). It should be noted that such tendencies in themselves require an explanation. Samuels, believing suprasegmental variants are responsible for a number of sound-changes, points out that 'forceful styles may show a *higher* or *more fronted* tongue-position, whereas the less stressed variants of relaxed styles may show *lower, more centralised* or *retracted* tongue-positions' (1972: 21, his emphasis). If so, this goes a long way towards explaining why vowel shifts of the kind investigated here are a common feature of Gmc languages, which are stress-timed.

Where questions and *when* questions are somewhat different in nature. *Where* questions try to uncover the geographical dialect(s) in which the 'GVS' was initiated, and *when* questions try to identify more precise dates for the successive stages of the shift. Luick (1914–40: §§479 ff.) pays some attention to the geographical spread and distribution of the 'GVS' changes, whereas Kökeritz (1932), Orton (1933), and Johnston (1992) all devote part of their discussions to attempting to establish the dates for the stages of the 'GVS'. The aim of Boisson (1982) is to identify the internal chronology of the 'GVS' changes. The present work also attempts to answer *where* and *when* questions.

Finally, in more recent years, *who*-type questions have been posed by socio-linguists (e.g. Smith 1993, 2007; Labov 1994), and have been concerned with social variables such as gender, education, class, prestige, mobility, and types of social links as important factors involved in the adoption and spread of linguistic changes, including the 'GVS'.

1.2.3 What is wrong with the traditional account of the 'GVS'?

Most handbook accounts deal with the particular nature and outcome of the 'GVS' in *Standard* English only and disregard dialect evidence altogether. Yet, most non-standard dialects of English do not show the mostly symmetrical pattern of vowel-raising and diphthongisation seen in RP; this is evidenced by for example Dieth (1932, for Buchan), Kökeritz (1932, for Suffolk), Orton (1933, for Durham), and Widén (1949, for Dorset). In parts of the North, for instance, OE *ā* remained and was later fronted and diphthongised; OE *ō* was fronted and raised to [ʉ:]; and OE *ū* [u:] remains (Orton 1933). Moreover, the vowel systems of various PDE dialects may shed light on the stages of, for example, the diphthongisation of the close vowels in the 'GVS'. In Eastern Canadian English and Scots English, for example, OE *ū* is reflected as [əʊ], at least in certain contexts (e.g. in *out* and *about* in the former dialects, and in *down* and *pound* in the latter), which points to centralisation of the developing on-glide (cf. the *what* questions treated above). Smith (1993) has used dialect evidence in his treatment of the 'GVS'.

Furthermore, up until about thirty years ago (with a few notable exceptions), chain-shifts of the 'GVS' kind were treated as uniquely English and unique *within* English. However, it is now recognised that similar chain-shifts affecting the long vowels have taken place in most Gmc languages, except Danish. Thus, PrGmc *ī* and *ū* have diphthongised in German also, giving Modern High German /ai/ and /au/, for example in *Wein, weiss* and *Haus, braun*; a similar development can be traced for these vowels in Dutch, where, in addition, the etymological *ō* has been raised to /u:/ (Pelt 1980; Frankis 1986; van Reenen and Wijnands 1989; Peeters 1991); on the South-African chain-shift, see Lass and Wright (1985). Again, such changes are regarded as connected and systemic, as are diachronic long-vowel changes in Swedish and Norwegian, in which two etymological non-close back vowels were raised and the close back vowel was fronted: ON *á* > /o:/, *ó* > /u:/, *ū* > /ʉ:/ (Benediktsson 1970a, 1970b; Haugen 1970, 1976; Torp and Vikør 1993: 61–62; Eliasson 2010). Besides, Swedish /i:/ is now pronounced as a minimal diphthong /ij/ in