Great Vowel Shift(s)? Diatopic variation and the problem of structural coherence in the Great Vowel Shift debate

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Abstract

The long vowel changes generally associated with the Great Vowel Shift (GVS) differed significantly amongst the varieties of English, especially between northern and southern dialects (Prichard 2015: 60; Smith 2007: 127). Against this backdrop, some scholars (Boisson 1982: 10–13; Smith 2004: 326; Stockwell & Minkova 1988: 371; Western 1912: 3) have contested the notion of the GVS as a coherent phenomenon, instead advocating for the view that the long vowel changes are arbitrary and structurally independent (Stockwell & Minkova 1988: 371) or arguing in favour of a distinct northern shift (Smith 2007: 138). This paper enquires into the implications of diatopic variation for our understanding of the GVS. It looks at Prichard's (2014) evaluation and discussion of data from Eduard Kolb's *Phonological Atlas of the Northern Region* (1966), which finds that the changes of the Middle English (ME) close and half-close front, and back vowels *ē, ī, ō,* and *ū* can be considered the result of one coherent shift, whilst the developments of the ME half-open and open front and back vowels *ɛ̄*, *ā*, and *ɔ̄* do not display a similarly coherent pattern.

1. Introduction

In the preface to *English Phonology and Phonological Theory*, Lass (1976: xi) claims that

> [f]rom a reading of the historical literature, for example, one could be forgiven for thinking that the historical development of English has been a single-minded march toward R[eceived]P[ronunciation] or Kenyon-Knott American English: Scots, Northern and North-Midland English and many other dialects with their own individual structures and histories have been relegated to footnotes or ignored.

Lass's observation of an over-focus on standard language in English phonological research holds true also for many academic discussions of the Great Vowel Shift (GVS): As Smith (2007: 127) notes regarding this observation by Lass, "[a]lmost all studies and standard handbooks have concentrated on the area where it developed most fully, namely, the southern parts of England."[1] However, the

[1] For example, this applies to Baugh & Cable (2013: 196ff.), Barber (2004: 104ff.), Görlach (1978: 68f.), and Krug (2017: 244f.).

development of the GVS differed significantly amongst the varieties of English, especially between northern and southern dialects (Prichard 2015: 60; Smith 2007: 127). Against this backdrop, some scholars (for example: Boisson 1982: 10–13; Smith 2004: 326; Stockwell & Minkova 1988: 371; Western 1912: 3) have even contested the notion of the GVS as a coherent phenomenon, instead advocating for the view that the sound changes associated with the GVS are arbitrary and structurally independent (particularly Stockwell & Minkova 1988: 371), or like Smith (2007: 138) arguing in favour of a distinct northern shift.[2] Such concerns invite further enquiry into the implications of diatopic variation for our understanding of the GVS and especially into the question to what extent the GVS can thus be considered a coherent shift.[3]

In the following, after a brief definition of the term *Great Vowel Shift*, Section 2 analyses how coherent models of the shift have been contested based on supposedly irregular developments of the long vowels in northern English dialects. Consequently, Section 3 examines the status of the GVS in northern dialects as well as the implications of northern dialect irregularities for coherent models of the GVS. To that end, it looks at the geographic distribution of the Present Day English (PDE) reflexes of the Middle English (ME) long vowels drawing on Prichard's (2014) evaluation and discussion of dialect data from Kolb's *Phonological Atlas of the Northern Region* (1966), which were originally collected under the umbrella of the *Survey of English Dialects* (Orton 1962: 14).

2. The Great Vowel Shift debate, diatopic variation, and the problem of structural coherence

2.1. Coherent models of the Great Vowel Shift from Luick to Lass

The term *Great Vowel Shift* is conventionally used to refer to a series of sound changes that "distinguishes the phonologies of late Middle English from those of the Early Modern period"[4] (Smith 2007: 127) and affected the system of long vowels (Smith 2007: 127).[5] The debate on the GVS started with Karl Luick and Otto Jespersen. In Luick's (1896: 306) view, the shift followed the logic of what today would be described as a push chain:[6] He argued that the shift was started by the raising of the Middle English vowels *ē* and *ō,* which moved toward the phonetic position of *ī* and *ū.*[7] Supposedly as a result, ME *ī* and *ū* were displaced and diphthongised. Luick found support for this

[2] I will consider Western (1912) as well as Stockwell & Minkova (1988) in Section 2.2, and Smith (2007) in Section 2.3. Boisson's (1982) interpretation of dialect data has been convincingly rejected by Stockwell & Minkova (1988: 364) and is, therefore, not considered in the present paper.
[3] That the GVS proceeded coherently is the underlying assumption of chain shift theories, as will become clear in Section 2.
[4] I follow Smith's (2007: 127) simplistic definition of *sound change* as a "redistribution of sounds within the lexicon" of a language. However, for a more detailed account that also considers problems of definition and interpretation, see also Garrett (2015: 227ff.).
[5] Hence, the beginning of the GVS can (very) roughly be dated to the fourteenth century (Prichard 2015: 57).
[6] Dinkin (2012: 748) comprehensively defines the term *chain shift* as "a set of phonetic changes affecting a group of phonemes so that as one phoneme moves in phonetic space, another phoneme moves toward the phonetic position the first is abandoning; a third may move toward the original position of the second, and (perhaps) so on."
[7] When speaking of the movement of a particular vowel, I refer to the movement of the phoneme associated with that respective vowel. As will become clear in Section 3.1, I follow Prichard (2014: 91) in using Kolb's (1966) ME long vowel categories (*ī, ē, ɛ̄$_{1+2}$, ā, ū, ɔ̄$_{1+2}$*).

supposed chronology, and in effect also for the coherence of the shift ("innerer Zusammenhang" in Luick 1896: 155, 306), in the observation that some northern dialects did not diphthongise ME *ū,* while simultaneously displaying features (for example as regards the front vowels) of the GVS (Luick 1896: 67ff., 306). He explained this by referring to a sound change prior to the GVS, known today as *ō*-fronting (Prichard 2014: 99) or northern fronting (Lass 1987: 226f.), in which ME *ō* had been fronted and, in the affected dialects, could not move toward the phonetic position of ME *ū* (Luick 1896: 69f.; Dinkin 2012: 748).[8]

In contrast, Jespersen (1909: 233f.) advocated what today would be referred to as a drag chain model starting with the diphthongisation of ME *ī* and *ū.* However, compared to Luick, Jespersen's conception does not fully explain the fact that some northern dialects did not diphthongise ME *ū.*[9] For Jespersen (1909: 232) the unitary status of the GVS was nevertheless out of question as he claimed that "the single vowels cannot be considered separately; they are all evidently parts of one great linguistic movement." Hence, despite their diverging views of the supposed chronology of the vowel changes, both regarded those changes as interlinked and, therefore, conceived the GVS as a coherent phenomenon.

Prichard (2014: 88) observes that "[m]uch work on the GVS has followed Luick and Jespersen in positing that the shift proceeded as a coherent, 'unitary' change:" For example, Lass (1992: 148 and 153) upholds the notion of the GVS as a coherent shift, at least for the ME upper vowels *ē, ī, ō,* and *ū*. Even though Lass (1992: 152f.) admits that "[t]he developments of the lower vowels" (i.e. ME *ɛ̄*, *ā*, and *ɔ̄*) are "not really chain-like" and took place later, he still arrives at the conclusion that the changes involved "are both massive and system-transforming enough to be called 'Great', and coherent enough to merit both the definite article and the term 'Vowel Shift'."

2.2. Diatopic variation: A challenge to the coherence of the Great Vowel Shift?

However, the supposed coherence of the GVS has also been challenged particularly based on the observation that the outcomes of the sound changes generally identified with the GVS vary amongst the dialects of English.[10] For example, Western (1912: 1–8), a contemporary of Luick and Jespersen, pointed toward dialect irregularities in the implementation of the GVS. Most importantly, he challenged Luick's conception of the GVS because of its reliance on the raising of ME *ō* and the consequent displacement of ME *ū* (only in the dialects without prior northern fronting) as evidence for both the coherence and chronology of the sound changes:

[8] Nonetheless, as will become clear in Section 2.2, there are exceptions challenging this observation by Luick.
[9] While Jespersen (1909: 238) also acknowledges that "[t]he diphthongisation of /uː/ has not taken place in northern dialects", he does not offer a convincing explanation for this.
[10] For further "problems of coherence and explanation" (Stockwell & Minkova 1988: 355) of the GVS see the article from Stockwell & Minkova (1988) and McMahon's (2006: 162ff.) excellent discussion thereof. McMahon (2006: 162ff.) offers an informed account of the inception problem, the merger problem and partially of the problem of structural coherence, yet largely omits the dialect problem, which is the focus of the present paper.

> Aber um diese zwingende beweiskraft zu haben, müssen die übereinstimmungen zwischen den verschiedenen entwicklungen der laute ō und ū ausnahmslos sein […] und umgekehrt muß eingeräumt werden, daß wenn sich unzweifelhafte fälle finden, wo ū diphthongiert worden ist, ohne daß ō zu ū geworden, oder wo ū geblieben ist, trotzdem ō wirklich zu ū geworden, - die ganze theorie Luicks zu boden fällt.[11] (Western 1912: 2)

And indeed, one of Western's (1912: 3f.) central findings is that in the dialect of Lincolnshire ME *ū* remained a monophthong even though ME *ō* moved to the phonetic position of ME *ū*.[12] For instance, for *house* this means that the reflexes of ME *ū* have retained a monophthongal sound value, whereas the reflexes of ME *ō*, as in *goose*, have shifted to the phonetic position of ME *ū* (Britton 2002: 223).[13] As will become apparent in Section 3.2, Western's observation has similar implications to certain irregularities in the data evaluated by Prichard (2014: 99), who finds evidence for both *ū*-diphthongisation and *ō*-fronting in a few dialects of the north. These examples would at first view challenge a supposed causal relationship between the changes of ME *ō* and *ū* and, therefore, (both push and drag)[14] chain explanations of the GVS in general because they seem to undermine the assumption that the movement of one phoneme to the phonetic position of another phoneme necessarily leads to the displacement of the latter phoneme (as would be the case in a push chain scenario) or of another phoneme (as in a drag chain scenario) (Dinkin 2012: 748).

A different perspective is offered by Stockwell & Minkova (1988: 371), who claim that "the vowel shift, as a totality […], is not characteristic of the development of English dialects." They point toward similar developments of the long vowels in other Germanic languages and infer that the sound changes generally identified with the GVS are arbitrary and only by chance have been "elegantly symmetrical in one supposedly uniform variety of late Middle English and early Modern English and only partially implemented outside that variety" (Stockwell & Minkova 1988: 371).[15] As a result of this and further "problems of coherence and explanation," Stockwell & Minkova (1988: 355, 376) have famously described the GVS as the "linguist's creation through hindsight."

And yet, Stockwell & Minkova's claim that the GVS is generally not characteristic of the English dialects remains doubtful: At least amongst southern dialects, there is — despite individual deviations from the expected GVS pattern — still relative uniformity in the development of the long vowels (Prichard 2015: 60; Smith 2007: 127). Prichard (2015: 60) finds that most southern dialects display the expected diphthongisation of ME *ī* and *ū* as well as the expected raising of ME *ē* and *ō,*

[11] The quote retains the original orthography and capitalisation conventions from the source text.
[12] Western (1912: 4) also finds three further (slightly different) examples of dialect irregularities. However, only the example from Lincolnshire is consistent with the data evaluated by Prichard (2014: 99). See Section 3.2.
[13] These two examples and the merger of ME *ō* and *ū* are discussed in more detail in Britton (2002: 223).
[14] Western (1912: 1) seems to be unaware of this implication of his argument as he still favours Jespersen's conception of the GVS, which follows the logic of a drag chain theory. See Section 2.1.
[15] This point is possibly of interest yet cannot be considered in the present paper as it would necessitate a contrastive analysis of the development of long vowels in Germanic languages.

whereas in the north, "only one of these four changes shows reliably uniform outcomes across the region; the most frequent reflex of ME *ē* is indeed [iː]."

2.3. Great Vowel Shift(s): a distinct northern shift?

Smith (1996: 110; 2004: 309; 2007: 127) acknowledges that the long vowel changes generally identified with the GVS developed with greater uniformity in the southern parts of England than in the north. However, according to him, this difference between north and south is best explained by his hypothesis of a northern shift "similar but distinct" from the GVS in the south (Smith 2007: 138). He argues: "[I]t is worth recalling that similar outcomes in the history of sounds can often result from quite distinct earlier sources. […] It is thus quite possible that the Northern and Southern Shifts, though in some ways similar, derive from quite different origins" (Smith 2004: 312). The underlying assumption here is that the GVS (in the south) and the distinct northern shift postulated by Smith were triggered differently and independently of each other, yet have led to similar phonological outcomes and, therefore, both identified with the GVS (Smith 1996: 99). In this matter, Smith's argument and conclusion of two distinct vowel shifts is remarkably different to the perspectives offered by the linguists previously discussed.

Smith's claim of a distinct northern shift, the observation that the long vowel changes associated with the GVS developed with greater uniformity in the southern parts of England than in the north (Prichard 2015: 60; Smith 2007: 127), and Western's (1912: 3f.) finding of dialect irregularities in Lincolnshire all demand for a closer look at the status of the GVS in the north of England, which will be presented in the following section.

3. The Great Vowel Shift in northern dialects

The previous section has demonstrated how particularly (albeit not only) northern dialect irregularities have been used to challenge the notion of the GVS as a coherent or unitary phenomenon.[16] To examine the outcome of the GVS in northern English dialects and the implications of northern dialect irregularities for coherent models of the GVS, this section offers a discussion of Prichard's (2014) evaluation of northern dialect data from Kolb (1966). The data was collected between 1950 and 1961 under the umbrella of the *Survey of English Dialects* (Orton 1962: 14). It was initiated in 1946 and based on oral interviews that were structured by a detailed questionnaire.[17] The informants were — with rare exceptions — men over the age of 60, "who were, or had formerly been, employed in farming" (Orton 1962: 14f.). Their answers were transcribed by fieldworkers and, in some cases, also tape-recorded (Orton 1962: 18ff.). For the *Phonological Atlas of the Northern*

[16] As has been shown in Section 2.2, Stockwell & Minkova (1988) challenge the coherence of the GVS based on dialect data from all over England and point to similar developments of the long vowels in other Germanic languages.
[17] The questionnaire used for the *Survey of English Dialects* can be found in Orton (1962).

Region, Kolb (1966: 20) curated data from Northumberland, Cumberland, Durham, Westmorland, Lancashire, and Yorkshire, as well as northern Lincolnshire and the Isle of Man, in an extensive set of maps. Prichard (2014: 90) digitised 33 lexical items from Kolb's data (excluding the Isle of Man) containing the reflexes of all Middle English long vowels and visualised the geographical distribution of these reflexes in eleven new maps.[18] These maps are categorised according to Kolb's long vowel categories (*ī, ē, ɛ̄₁₊₂, ā, ū, ɔ̄₁₊₂*). By processing a part of Kolb's data into eleven new maps, Prichard (2014: 91) seeks to provide not only "a more comprehensive view of the vowel system" but also "a closer scrutiny of the patterns of diffusion, including previously obscured nesting effects of the variants." What follows is a discussion of Prichard's maps and of her evaluation thereof with a particular focus on the implications for the supposed coherence of the GVS. Section 3.1 discusses the development of the ME front vowels, Section 3.2 examines the development of the back vowels, and Section 3.3 looks at the implications and limitations of Prichard's evaluation.

3.1. The ME front vowels and the geographic distribution of their reflexes

Prichard's (2014: 91) Map 2 visualising the distribution of the PDE reflexes of ME *ī* suggests a northward progression of the sound change. Prichard (2014: 92) comments: "[T]he expected reflex [aɪ] is found in the northeast, and further advanced forms [ɑɪ, ɑː, aː] are found in the south-central area" (Prichard 2014: 92). In addition, the map includes no evidence for both partially shifted or pre-shift reflexes (Prichard 2014: 91f.). Hence, the distribution of the PDE reflexes of ME *ī* supports the view of a change that emanated from the south and gradually progressed toward the north.

As has already been mentioned in Section 2.2, almost all PDE reflexes of ME *ē* in the north uniformly display the expected development to PDE [iː]. This is also reflected by Prichard's (2014: 92) Map 3, which displays a rather homogenous set of reflexes. However, there is one exception in the Yorkshire Dales, which Prichard (2014: 93) — drawing on a case study by Lass (1976: 90–99) — interprets as a regional innovation. If this interpretation is accepted, we may conclude that the shift of ME *ē* has reached completion across the north.

Other than the upper front vowels, Prichard's (2014: 93f.) Maps 4 and 5 visualising the geographic distribution of the reflexes of ME *ɛ̄₁* and *ɛ̄₂* are more ambiguous and display a rather heterogeneous set of reflexes with no obvious progression from south to north.[19] Nevertheless, based on the data for ME *ɛ̄₁*, Prichard (2014: 93) infers that the far north still underwent the expected shift from [ɛː] via [eː] to [iː], whilst irregularities are to be found in the northeast.

Also, the northern reflexes of ME *ā* are subject to greater variation than those of the upper front vowels: As Prichard's Map 6 suggests, they include PDE [ɛə], [eə], [ɪə], [jɛ], [ea], [ɪa], [ɛː], and [eː] (Prichard 2014: 95). Yet according to Prichard (2014: 94), a greater degree of variation must be

[18] All maps referred to in the present paper are to be found in Prichard (2014: 90–100).
[19] ME *ɛ̄₁* and *ɛ̄₂* are reflexes of different Old English / Early Middle English etymological classes and, therefore, considered individually by Prichard (2014: 91).

expected amongst the reflexes of ME *ā,* given the comparatively large number of individual changes ("[aː] > [æː] > [ɛː] > [eː] > [eɪ]") between Middle and Present-Day English leaving "more room for variation in the modern reflexes." Nonetheless, Prichard (2014: 95) finds evidence that at least the first step of the sound change occurred all across the north, since neither [aː] nor [æː] are retained.

3.2. The ME back vowels and the geographic distribution of their reflexes[20]

Similar to the distribution of the reflexes of ME *ī*, Prichard's Map 7 hints at a certain progression from south to north in the distribution of the reflexes of ME *ū* "with the most advanced forms—[aː], [æʊ], etc.—clustered in the southwest and fanning out from there" (Prichard 2014: 96). Yet this apparent northward progression in the distribution of the reflexes of ME *ū* is a lot less clear than it is for the reflexes of ME *ī.* This is because in northern Lincolnshire, Northumberland, eastern Yorkshire, Westmorland, and northern Cumberland, the unshifted ME *ū* was preserved as [uː] (Prichard 2014: 96). Concurrently, in parts of Yorkshire other than the east and southeastern Lancashire ME *ū* underwent full diphthongisation (Prichard 2014: 99).

As we have seen in Section 2.1, Luick's theory suggests that ME *ū* is expected to remain a monophthong in dialects that were affected by northern fronting of ME *ō*. However, according to Prichard's (2014: 97 and 99) visualisation and analysis of the distribution of the reflexes of ME *ō,* certain dialects of the north (broadly along the Ribble-Humber Line)[21] display both *ū*-diphthongisation and *ō*-fronting. Furthermore, as Section 2.2 has demonstrated, Western (1912) pointed toward the absence of diphthongisation of ME *ū* in Lincolnshire, even though ME *ō* moved to the phonetic position of ME *ū*. These findings would at first view raise an issue for Luick's push chain model of the GVS, which hinges upon a "dependency relationship" between ME *ō* and *ū* (Prichard 2014: 99). This is because both examples from Western and Prichard seem to undermine the logic of chain shifting: In Lincolnshire the movement of ME *ō* to the phonetic position of ME *ū* did supposedly not lead to the displacement of the latter (which can be inferred from the absence of diphthongisation of ME *ū* in Lincolnshire). Similarly, in the case of the dialects which display both *ū*-diphthongisation and *ō*-fronting, the diphthongisation of ME *ū* seems to be independent of the movement of ME *ō,* wherefore the movement of ME *ō* supposedly can no longer be considered the only and necessary condition for the movement of ME *ū*.

The implications of the findings from Western and Prichard are, of course, not easily neglected. Yet at closer consideration, these apparent challenges for (push) chain explanations of the GVS can be resolved, as Prichard (2014: 97 and 100) convincingly argues:[22] Following Labov's

[20] In the varieties of English where ME *ō* has been fronted it is to be described as a front vowel.
[21] The Ribble-Humber Line is a cluster of isoglosses broadly distinguishing southern and northern dialects (Prichard 2014: 97f.).
[22] Only the main tenets of the diffusion argument are discussed here; readers are referred to Prichard (2014: 87–102) and Britton (2002: 221–229) for more detailed accounts.

(2007: 345–348) distinction of transmission and diffusion as mechanisms of sound change, Prichard holds that the supposedly irregular outcomes in the north, such as the coexistence of both *ū*-diphthongisation and *ō*-fronting, or the absence of *ū*-diphthongisation in Lincolnshire, are the result of diffusion processes from dialects south of the Ribble-Humber Line that did not undergo northern fronting; these are supposed to have happened after the completion of the changes identified with the GVS.[23] Concurrently, other supposedly regular outcomes (as for example the development of the front vowels) in the same dialects can be explained by transmission (Prichard 2014: 96). The idea behind Labov's (2007: 346) distinction is that during first language acquisition children "replicate faithfully the form of the older generation's language." Therefore, transmission accounts for "the continuity of dialects and languages across time" (Labov 2007: 346). Diffusion, however, is the result of contacts between adults, who have different learning abilities than children and, therefore, produce more irregular results (Prichard 2014: 89). Prichard's (2014: 88f.) claim that diffusion from more southern dialects can account for regional deviations from the expected GVS pattern is supported by findings from Britton (2002: 221), who similarly explains the absence of *ū*-diphthongisation in Lincolnshire as the result of diffusion from the south, and thereby also preserves the possibility of chain shifting in Lincolnshire. As a result, Western's criticism of Luick's push chain model can be rejected.

Prichard's (2014: 98f.) Maps 9 and 10 regarding the PDE reflexes of ME $\bar{ɔ}_1$ and $\bar{ɔ}_2$ display a very diverse set of reflexes and suggest that, in the context of the present paper, very little can be said about their PDE reflexes.[24] At least in Kolb's data, they reflect none of the expected outcomes of the GVS, and, therefore, in the entire north seem to have developed completely distinctly from the south (Prichard 2014: 98f.).

3.3 Implications and limitations of Prichard's evaluation

However, these unexpected outcomes of the development of the lower back vowels ME $\bar{ɔ}_{1+2}$ and the greater degree of variation and ambiguity amongst the reflexes of the lower front vowels ME $\bar{ɛ}_{1+2}$ and *ā* align with the findings from Lass (1992: 148, 153) discussed in Section 2.1, who defends the coherence of the GVS for the upper vowels but admits that the development of the lower vowels does not follow the logic of a chain shift and commenced later. Accordingly, the variation, ambiguity, and even deviating forms found amongst the reflexes of the ME lower vowels would not undermine the supposed coherence of Lass's (1992: 148, 153) conception of the GVS for the upper vowels.

[23] "[T]hese irregularities are seen as the natural result of the breakdown in structural relationships that occurred during the later diffusion of the back vowel changes from the south, across the dialect boundary running from the Ribble to the Humber" (Prichard 2014: 99).

[24] Like ME $\bar{ɛ}_1$ and $\bar{ɛ}_2$, ME $\bar{ɔ}_1$ and $\bar{ɔ}_2$ are reflexes of different Old English / Early Middle English etymological classes and, therefore, considered individually by Prichard (2014: 91).

The distribution of the reflexes of ME *ē*, *ī,* and (albeit to a lesser degree) *ū* supports the view of one coherent shift that emanated from the south and progressed northwardly. This is because the most advanced forms of these vowels are found in the south, while the least advanced forms are found in the very north. Again, these findings would best be explained by a push chain theory affecting only the upper vowels as suggested by Lass (1992: 148, 153). Additionally, the apparent progression of the shift from south to north is irreconcilable with the notion of independent triggering of a distinct northern shift as suggested by Smith. Furthermore, given this apparent progression from south to north in the degree to which individual dialects are affected by the sound changes, Stockwell & Minkova's (1988: 371) claim that the GVS were generally "not characteristic of the development of English dialects" must be called into question.

Prichard's evaluation of the data from Kolb (1966) has confirmed Western's finding of the absence of diphthongisation of ME *ū* despite the movement of ME *ō* to the phonetic position of ME *ū* in Lincolnshire. In addition, she has found certain dialects along the Ribble-Humber Line, which display both *ū*-diphthongisation and *ō*-fronting. These dialect irregularities at first seem to challenge push chain explanations of the GVS, which rely upon a dependency relationship of the development of ME *ō* and ME *ū.* Nonetheless, as Prichard has argued, these dialect irregularities can be explained as the results of diffusion processes that have taken place later than the actual changes associated with the GVS. If this argument is accepted, Western's criticism of Luick's push chain model can be rejected.

In total, Prichard's analysis of the geographic distribution of the PDE reflexes of the ME long vowels has provided a useful framework against the backdrop of which it was possible to assess the criticism of coherent models of the GVS by Western and Smith. It is, nonetheless, imperative to stress that Prichard's study has been based on a very limited amount of data that can by no means fully represent the linguistic diversity of the northern dialects: for example, in most locations only a single pronunciation variant per word was documented (Prichard 2014: 90). Moreover, as Prichard herself remarks, "given only 2–5 words per vowel class, it was impossible to reliably observe the contextual effects which are known to affect the GVS." However, these shortcomings are not produced by Prichard but largely result from the data used by Kolb.

4. Conclusion

This paper has enquired into the implications of diatopic variation for our understanding of the GVS and, particularly, into the extent to which the GVS, against the backdrop of diatopic variation, can be considered a coherent event. After a brief discussion of coherent models of the GVS from Luick (1896), Jespersen (1909), and Lass (1992), Section 2 has analysed how Western (1912), Stockwell & Minkova (1988), as well as Smith (1996, 2004, 2007) have respectively contested the supposed coherence of the shift based on diatopic variation, focusing particularly on (northern) dialect

irregularities: While there is relative uniformity in the development of the long vowels amongst southern dialects, most northern dialects display a greater degree of irregularity when it comes to the outcomes of the long vowel developments.

Consequently, Section 3 has looked at the status of the GVS in northern dialects drawing on Prichard's (2014) evaluation and discussion of data from Kolb (1966). The section has looked at the geographic distribution of the PDE reflexes of the ME long vowels. The distribution of the PDE reflexes of ME *ēː, īː,* and *ūː* points toward one coherent shift that started in the south and progressed northwardly because the most advanced forms of these vowels are to be found in the south, while the least advanced forms are to be found in the north. This apparent progression from south to north is irreconcilable with the independent triggering of a distinct northern shift as suggested by Smith. Moreover, Western's criticism of Luick's push chain model has been rejected because the absence of diphthongisation of ME *ūː* in Lincolnshire and other northern dialect irregularities affecting the relationship of the ME upper back vowels *ōː* and *ūː* can be explained as the result of diffusion from more southern dialects that did not undergo northern fronting. The developments of the ME upper long vowels *ēː, īː, ōː,* and *ūː* can, therefore, be considered the result of one coherent shift. However, the developments of the ME lower vowels *ɛ̄ː*, *āː*, and *ɔ̄ː* do not display a similarly coherent pattern. And yet, this resonates with Lass's push chain theory of the GVS, which — as has been demonstrated in Section 2.1 — advocates the structural coherence of the changes affecting the upper vowels but argues that the development of the lower vowels does not follow the logic of a chain shift. Therefore, Lass's (1992: 153) claim that the changes generally identified with the GVS "are both massive and system-transforming enough to be called 'Great', and coherent enough to merit both the definite article and the term 'Vowel Shift'" provides a credible answer to the research question of this paper.

5. References

Barber, Charles. 2004. *Early Modern English*. Edinburgh: Edinburgh University Press.

Baugh, Albert & Thomas Cable. 2013. *A history of the English language*, 6th ed. London: Routledge. DOI: https://doi.org/10.4324/9780203994634.

Boisson, Claude. 1982. Remarques sur la chronologie interne du grand changement vocalique en anglais. *CIEREC, Université de Saint-Étienne*, *Travaux* 35. 9–30.

Britton, Derek. 2002. Northern fronting and the north Lincolnshire merger of the reflexes of ME /u:/ and ME /o:/. *Language Science* 24. 221–229. DOI: https://doi.org/10.1016/S0388-0001(01)00030-4.

Dinkin, Aaron. 2012. Toward a unified theory of chain shifting. In Terttu Nevalainen & Elizabeth Closs Traugott (eds.), *The Oxford handbook of the history of English,* 748–760. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oxfordhb/9780199922765.013.0062.

Garrett, Andrew. 2015. Sound change. In Claire Bowern & Bethwyn Evans (eds.), *The Routledge handbook of historical linguistics*, 227–248. London: Routledge. DOI: https://doi.org/10.4324/9781315794013-13.

Görlach, Manfred. 1978. *Einführung ins Frühneuenglische*. Heidelberg: Quelle & Meyer.

Jespersen, Otto. 1909. *A Modern English grammar on historical principles: Part I. Sounds and spellings*. Heidelberg: Carl Winter.

Kolb, Eduard. 1966. *Phonological atlas of the northern region: The six northern counties, North Lincolnshire and the Isle of Man*. Bern: Francke Verlag.

Krug, Manfred. 2017. The Great Vowel Shift. In Alexander Bergs & Laurel Brinton (eds.), *The History of English: Volume 4. Early Modern English*, 241–266. Berlin: De Gruyter Mouton. DOI: https://doi.org/10.1515/9783110525069-014.

Labov, William. 2007. Transmission and diffusion. *Language* 83(2). 344–387. DOI: https://doi.org/10.1353/lan.2007.0082.

Lass, Roger. 1976. *English phonology and phonological theory*. Cambridge: Cambridge University Press.

Lass, Roger. 1987. *The shape of English: Structure and history*. London: J. M. Dent & Sons.

Lass, Roger. 1992. What if anything was the Great Vowel Shift? In Matti Rissanen, Ossi Ihalainen, Terttu Nevalainen & Irma Taavitsainen (eds.), *History of Englishes: New methods and interpretations in historical linguistics,* 144–155. Berlin: De Gruyter Mouton. DOI: https://doi.org/10.1515/9783110877007.144.

Luick, Karl. 1896. *Untersuchungen zur englischen Lautgeschichte*. Berlin: De Gruyter Mouton.

McMahon, April. 2006. Restructuring Renaissance English. In Lynda Mugglestone (ed.), *The Oxford history of the English language*, 147–177. Oxford: Oxford University Press.

Orton, Harold. 1962. *Survey of English dialects (A): Introduction.* Leeds: E. J. Arnold & Son.

Prichard, Hilary. 2014. Northern dialect evidence for the chronology of the Great Vowel Shift. *Journal of Linguistic Geography*, 2(2). 87–102. DOI: https://doi.org/10.1017/jlg.2014.9.

Prichard, Hilary. 2015. The Great Vowel Shift in the North of England. In Raymond Hickey (ed.), *Researching Northern English*, 51–70. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/veaw.g55.03pri.

Smith, Jeremy. 1996. *An historical study of English: Function, form and change*. London: Routledge.

Smith, Jeremy. 2004. Phonological space and the actuation of the Great Vowel Shift in Scotland and Northern England. In Roger Lass & Marina Dossena (eds.), *Methods and data in English historical dialectology*, 309–328. Bern: Peter Lang.

Smith, Jeremy. 2007. *Sound change and the history of English*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199291953.001.0001.

Stockwell, Robert & Donka Minkova. 1988. The English Vowel Shift: Problems of coherence and explanation. In Dieter Kastovsky & Gero Bauer (eds.), *Luick revisited: Papers read at the Luick-Symposium at Schloß Liechtenstein, 15.–18.9.1985*, 355–394. Tübingen: Gunter Narr.

Western, August. 1912. Über die neuenglische Vokalverschiebung. *Englische Studien* 45. 1–8.