On the wrong track?: a non-standard history of non-standard /au/ in English¹

David Britain

Department of Language and Linguistics,

University of Essex

Wivenhoe Park

COLCHESTER CO4 3SQ

Great Britain

dbritain@essex.ac.uk

1. Introduction

A large number of non-standard varieties of English realise the diphthong /au/, found in words such as 'out' and 'down', with a front mid-open nucleus: $[\varepsilon \upsilon - \varepsilon \upsilon]^2$. Such varieties include many traditional accents of Southern and Eastern England, those spoken in the Southern Hemisphere Anglophone countries of Australia, New Zealand

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² These varieties show a considerable degree of variability with respect to the quality of the offglide. Some retain a glide to a back position, some glide to a more central position (e.g. New Zealand English (Britain 2008a)), and a few others have no glide at all, resulting in a realisation consisting of a long vowel of the quality of the nucleus (e.g. [ɛː], found, for example, in the English East Anglian Fens (Britain 2003)). The nature of the offglide is not of relevance to the issues discussed in this article, so will not be discussed further.

and the Falkland Islands, and large parts of the Southern United States. This paper addresses how these varieties came to have a diphthong nucleus in this front mid-open position. The traditional view is that, following the completion of the Great Vowel Shift, during which Middle English ū diphthongised and the nucleus of the new diphthong lowered all the way to [au], the nucleus then raised and fronted from this fully open position to reach its current location in front mid-open position. This shift from [au] to [ɛu] is often claimed to form part of a chain of vowel shifts affecting a considerable number of accents of English. Wells (1982) brings changes to /au/ together with changes to /i: ei ai oi u: ou/ in a vocalic movement called Diphthong Shift (Wells 1982: 256-7), whereas Labov includes this change as part of his proposed Southern Shift, which includes changes to all of the vowels proposed in Diphthong Shift, but also incorporates changes to /a: σ: I ε æ/ (e.g. Labov and Ash 1991: 512-4). In this article I present historical linguistic, geolinguistic and dialectological evidence that suggests that /au/ did **not** follow this route to arrive at front mid-open position in Southern England. Instead, I argue that this position was achieved via the fronting of a central nucleus of /au/, a change which is more in tune with the historical evidence, and more compatible with other characteristics of the varieties in question. I begin with a review of the geographical scope of accents with front mid-open nuclei of /au/ and the two traditional explanations for these nuclei. I then present a range of historical, geolinguistic and other descriptive dialectological evidence, covering the last two centuries, which shows both that [au] was simply not present as a vernacular realisation of /au/ in the relevant places at the relevant times, and that a fronting from [θυ] to [ευ] is compatible with 19th century descriptions of dialects in Southern England as well as with the relative conservativeness of other aspects of accents in that part of England at the time, especially the nature of /ai/, the 'partner' of /au/ in the Great Vowel Shift's diphthongisation of long high vowels.

2. Front mid-open realisations of /au/

This section highlights the present-day geographical distribution of [æυ - ευ] realisations of /au/, enabling us later to isolate traditional accounts of how these varieties arrived at these pronunciations.

Southern Hemisphere Englishes:

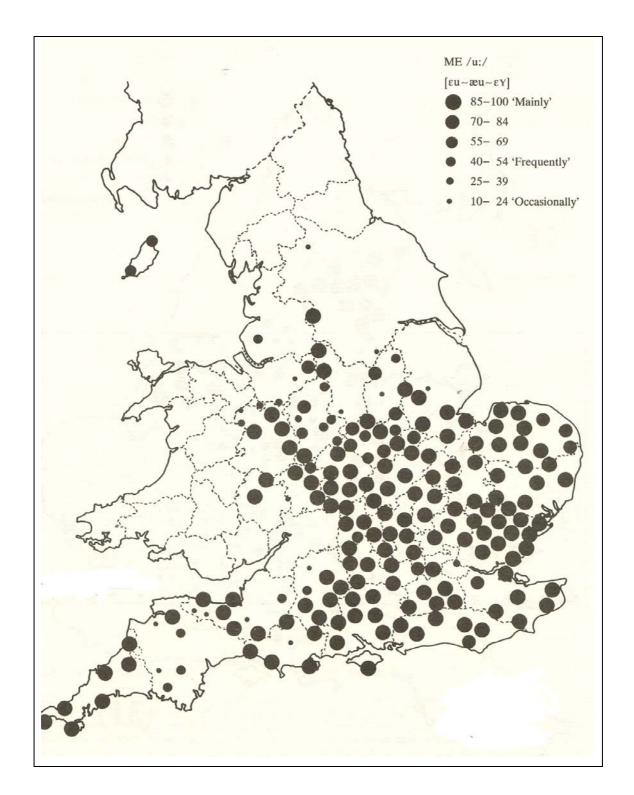
The contemporary Englishes of Australia and New Zealand have, in casual conversational styles, front mid-open onsets. Bauer and Warren (2004: 592) claim that New Zealand English (NZE) has a relatively close starting position of /au/ ([æu εθ] (2004: 582); see also Watson, Harrington and Evans 1998: 204), with closer variants in broader varieties of the accent (see Britain 2001, 2008a for a review of other studies of NZE /au/). For Australian English, Horvath (2004: 630) claims that /au/ is realised as [æɔ], with a closer nucleus among broader speakers (see also Cox 1998: 48; Watson, Harrington and Evans 1998: 204; and Britain 2008b for a review of other studies of Australian English /au/). In the English of the Falkland Islands in the South-West Atlantic, front mid-open onsets dominate, especially in positions before voiceless consonants (Sudbury 2000, 2001, Britain and Sudbury 2008). Also found there, however, though at much lower frequencies, are more central mid-open nuclei [gu]. Across to the south-east of the Atlantic Ocean, Schreier and Trudgill (2006: 126) report mid-open front variants in Tristan da Cunha. South Africa is rather the exception here. Bowerman (2004: 938) reports realisations such as [äu - aː], though notes that broader speakers have fronter nuclei such as [æu].

In other work, I have shown that historical dialectological sources from Southern England, as well as historical demographic data support Wells' (1982) view that New Zealand and Australian Englishes acquired front mid-open onsets of /au/ largely because they were the dominant realisations taken to Australasia by migrants and transported convicts in the 19th century (see Britain 2001, 2008a, 2008b, and, for the somewhat more complex story of /au/ in the Falkland Islands, see Britain and Sudbury 2008).

Southern England:

Tradtionally, front mid-open realisations of /au/ were found in many parts of southern England and the Midlands, as can be seen in Figure 1 below from Anderson (1987), who drew from data collected as part of the Survey of English Dialects, the most recent, though now quite dated (1948-1961), nationwide study of the accents and

Figure 1: The distribution of [ευ - εν] variants of /au/ in Survey of English Dialects (from Anderson 1987: 51).



dialects of England (Orton 1962). From more detailed and local studies since the beginning of the 20th century, [æ- ε] nuclei have been reported in: the Fens of West Norfolk, North Cambridgeshire and Southwest Lincolnshire (Britain 1991, 2003);

Eastern Suffolk (Kökeritz 1932: 64-67 – "Suffolk εu is a very stable diphthong" (1932: 65)); Essex (Albrecht 1916: 160-161; Kökeritz 1932: 67; Ryfa 2005; Amos, forthcoming); London (Jones 1919: 135; Ward 1931: 187; Lodge 1984: 53; Sivertsen 1960: 67; Hudson and Holloway 1977; Gimson 1970: 137; Tollfree 1999: 169; Labov 1994: 169, 210); the Home Counties (Wells 1982: 348; Gimson 1970: 137), Sussex (Lodge 1984: 64); South Warwickshire (Collins 1964: 42), the Midlands (Clark 2004: 152; Mathisen 1999: 109-110; Lodge 1984: 97, Painter 1963: 30; Simpson and Britain 2008); the South-West (Gimson 1970: 137) and West Cornwall (Wakelin 1986: 28). In the south-east of England, especially, it is clear, however, that these front mid-open forms represent relatively *conservative* realisations, with plenty of evidence of a shift *from* front mid-open forms *to* fully open forms (see, for example, Kerswill and Williams 2000: 86-89; Ryfa forthcoming; Amos forthcoming).

North America:

Front and mid-open onsets of /au/ can be found in a wide range of locations across North America, and not simply restricted to the South. This is in part due to the existence, both in Canada and parts of the northern US of accents that have undergone a fronting of 'Canadian Raising' of /au/. So, for example, Chambers and Hardwick (1986: 30-31) report a fronting towards [ɛu] before voiceless consonants and [æu] before voiced ones in both Toronto and Vancouver. It is also reported by Woods (1993) for Ottawa, Hung, Davison and Chambers (1993) for Victoria and Montreal, Boberg (2004) for Montreal and Roberts (2007) for Vermont.

Kurath and McDavid (1961: 110) report front and mid-open variants in the South Midland and the South (except for most of South Carolina, and adjoining coastal parts of Georgia and North Carolina), in Baltimore, Richmond, Norfolk, Charlottesville, Atlanta, variably in Northern New England. Fridland (1999) reports it in Memphis; Labov and Ash (1991) examine it in Birmingham; Feagin from Anniston (Feagin 2003: 132-134); fronted forms are reported as being widespread in both the urban (Tillery and Bailey 2004: 333) and rural (Thomas 2004: 313) Southern White speech communities; Labov, Ash and Boberg's Atlas of North American English

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³ Whereby nuclei are higher before voiceless consonants than in other contexts (Chambers 1973).

(2006: 107) shows fronted /au/ across the South and the southern half of the Midland, right up to Philadelphia and the Mid-Atlantic states in the east, and Gordon (2004: 345) reports it as far north as the southern part of Ohio, Indiana and Illinois, most of Missouri and Kansas as well as Nebraska and Iowa. Thomas (2001: 41) cites a wide range of studies pointing to fronted nuclei in Kansas City, Utah and California in addition to the places mentioned above, and suggests that raising is found especially in Philadelphia (2001: 42) but also shows it in speakers from North Carolina (2001:122), Oklahoma (2001:136) and Texas (2001: 147, 150, 151).

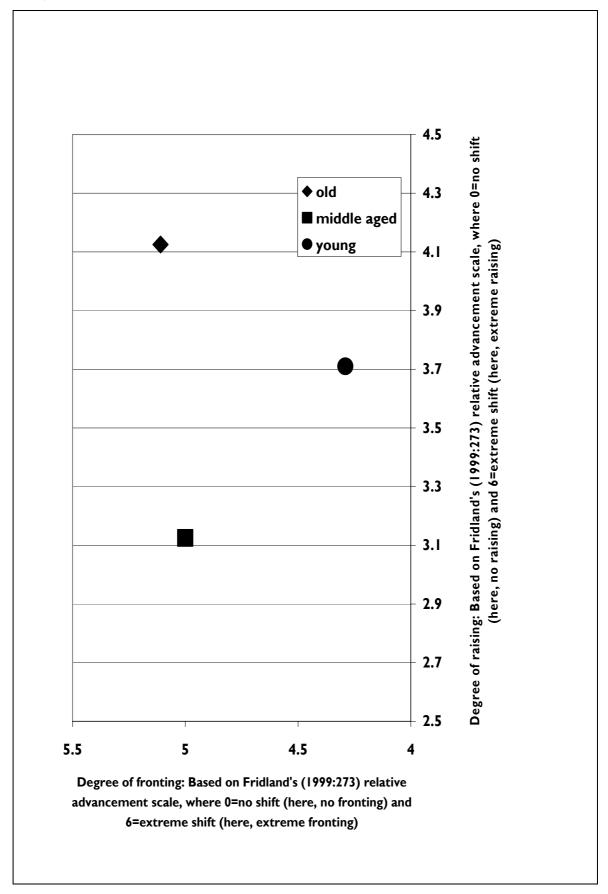
There are indications that in some US locations, front mid-open nuclei of /au/, as in South-eastern England, may be backing and/or lowering⁴. Fridland's data from Memphis shows that the most fronted and raised forms are found in the speech of her *oldest* informants, with younger speakers showing both lower and backer realisations on average (see Figure 2)⁵. From the far north-east of the country, in Vermont, Roberts (2007) reports that 'the original pattern for the vowels studied in Vermont was...an across-the-board raised and fronted /au/...the oldest male speakers retain much of this pattern (2007: 193).../au/ raising is most entrenched in the oldest speakers and is disappearing from, not entering, the speech community' (2007: 194).

It has been established, therefore, that front mid-open nuclei of /au/ are found as *traditional* as well as often present-day dialect forms in many accents of southern England, the Southern Hemisphere Anglophone countries and parts of the US, especially the South. Next, I present an overview of the established account of where these forms came from, before arguing that this traditional argument is not supported by evidence from non-standard dialects, past and present, and consequently cannot

⁴ Cox and Palethorpe also report an apparent-time lowering of the nucleus of /au/ in Australian English, but in their data this change was not statistically significant. Only time will tell whether lowering/backing of /au/ is a change that will ultimately affect all or most of the 'Southern Shift' Englishes. Evidence from New Zealand English suggests, however, that the nucleus of /au/ is becoming closer there (Britain 2008a).

⁵ The scores in Figure 2 were calculated by averaging the fronting scores and the raising scores for all individual males and females in each age group, based on the data presented in Fridland (1999: 275-276).

Figure 2: The use of /au/ in Memphis (based on data presented in Fridland 1999: 275-276).



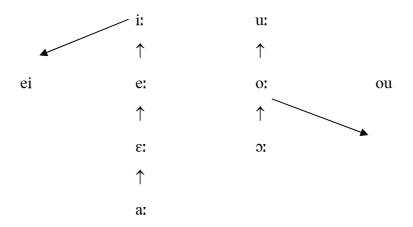
account for the development of the front mid-open forms of traditional non-standard varieties of southern Britain.

3. On the move?: The Great Vowel Shift and Southern Shift/Diphthong Shift

The traditional story of the journey taken by /au/ to arrive at [ɛu] begins with the Great Vowel Shift, a set of changes to English long vowels that began 'probably in the 15th century' (Lass 1987: 129). A traditional model of this shift is shown in Table 1 below. The Great Vowel Shift itself is controversial (Giancarlo 2001, Milroy 2007) in terms of: whether or not the different elements of the shift are connected (Stockwell and Minkova 1988; Johnston 1992), the route the changes took (especially for the lowering of the nuclei of diphthongized ME i and ME u (see below)), the geographical scope of the Shift (e.g. Jones 1989, Kubozono 1982), the dating of the completion of the shifts (Wells 1982: 185 suggests the Vowel Shift was complete by 1600 whereas Barber 1976: 292 reckons that [au] was reached in the 17th century in "advanced standard English but in the most conservative standard English not until about 1700", with Stevick 1968: 103 even arguing that this did not happen until 1800; see also Stockwell and Minkova 1988 for further complications with respect to timings of shifts) and even to what extent it could be called 'Great' (Jones 1989: 226 decided to "desist ascribing the epithet 'great' since it is hard to see on what grounds it is particularly outstanding"). Lass (1992: 145), rather amusingly, but quite rightly, stated that "the exegesis of the Great Vowel Shift has been one of our major cottage industries".

Part of the problem lies, of course, in which variety is being described when we propose that this shift applied to "English" – many historians of 'English' are mainly attempting to paint a picture of the story of *Standard* English, yet when the "Great Vowel Shift" began there was no clearly defined pronunciation model for

Table 1: Traditional representation of the Great Vowel Shift (Lass 1987: 130).



Standard English/RP⁶. So for /au/ the early part of the route particularly is controversial (Wolfe, 1972, Lass 1992, Yamada 1984, Jones 1989) since evidence was drawn from a period before a focussed standard pronunciation existed - most agree that at some point /au/ reached [əu], but, following diphthongisation of ME u, did the nucleus fall first before fronting to the centre (Jespersen 1949, Chomsky and Halle 1968, Lass 1987, Strang 1970, Ekwall 1975) or front first and then fall (Stockwell 1975, Stockwell and Minkova 1988)? - both could be right, of course, in different places. In some senses, this article problematises what happened once ME \bar{u} reached [au]. Generally, histories of English rarely engage in debate about this more recent phase, but since, as Milroy (2001: 13) argues, "the recent history of English as it has been handed down to us is, almost exclusively, the history of what is claimed to be standard English", almost all accounts of the history of "English" suggest that the final outcome of the Great Vowel Shift's diphthongisation of ME ū was [au] (see, for example, to name but some: Anttila 1989: 64-5, Barber 1976: 292, Baugh and Cable 1993: 233; Bloomfield and Newmark 1963: 234; Brook 1958: 54-5; Bourcier 1981: 5, 196-198; Bynon 1977: 82, Emerson 1915: 205; Harris 1994: 115, Hock 1991: 165-66,

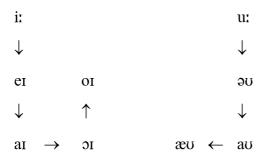
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⁶ Indeed Milroy (2001: 13) argues that 'what has been described as sixteenth century standard pronunciation would be more correctly labelled: *the pronunciation of gentleman and persons of rank including members of the Royal Court...*it is quite unlikely that there was a general consciousness of a *standard* pronunciation in 1600 (emphasis in original).

Jespersen 1949: 230, Jones 1989: 234, Lass 1976: 3, 1987: 133, Millward 1988: 220; Moore 1969: 134, Myers 1966: 168-9, Perkins 1977: 124-126, Smith 1992, Stevick 1968: 103). This is the point that RP has reached in England (Upton 2004: 221), and accounts of General American suggest the same for the US (Kretzschmar 2004: 263).

Two somewhat different sets of chain shifts have been proposed, however, to account for the developments which supposedly led to mid-open front onsets of /au/ being found in the Southern Hemisphere Englishes of New Zealand, Australia and the Falkland Islands, the Southern United States and, traditionally, southern England – *Diphthong Shift* (henceforth *DS*) (Wells 1982) and *Southern Shift* (henceforth *SS*) (Labov 1994). DS is described by Wells as 'a set of phonetic changes almost as fundamental as the Great Vowel Shift of half a millennium ago' (Wells 1982: 256). His somewhat simplified diagram of DS (Wells 1982: 256) is presented below in Table 2.

Table 2: Diphthong Shift, according to Wells (1982: 256).



So:

- /iː/ in words such as 'feet', 'keep' diphthongises, with the nucleus lowering to become [əɪ];
- /eɪ/ in words such as 'make', 'tape' undergoes a lowering and often backing of
 its nucleus to become [æɪ ɐɪ];
- /aɪ/ in words such as 'nice' and 'wide' backs and sometimes raises its nucleus to [aɪ - bɪ - ɔɪ];

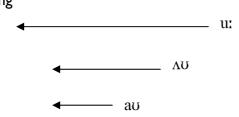
- /ɔɪ/ in words like 'toy' and 'choice' raise their nuclei to [oɪ];
- /uː/ in words such as 'mood' and 'hoop' diphthongise, with the nucleus lowering to [ɔu];
- /Δυ/ in 'goat' and 'know' front and lower the nucleus (and occasionally front the offglide too) to [υυ υΥ υτ];
- /au/ in words such as 'south' and 'town' front and raise the nucleus to [æυ ευ].

Arguing that in the case of /au/, the nucleus "shifts forwards to [æυ - æə - ευ]" (Wells 1982: 257) and noting the apparent parallels with movement to the nucleus of /ai/ (which "shifts from [aɪ] to [ɔɪ] or sometimes just to [ɑɪ] or [ɒɪ]" (Wells 1982: 257)), Wells labels this part of DS as 'PRICE-MOUTH crossover' (Wells 1982: 310), because the nucleus of /au/ is now front, even though it was back in Middle English, and /ai/ ends up as a back vowel, whereas in Middle English it was front. He goes on to claim (1982: 252) that DS was a London-based phenomenon well underway by the beginning of the 19th century and that it was exported to those colonies where significant Anglophone settlement began after that date, e.g. New Zealand and Australia. Wells does not, however, provide historical evidence that those non-standard varieties with [æυ - æə - ευ] in his contemporary descriptions once did have fully open realisations such as [au].

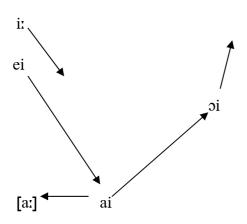
Although there are many similarities, Southern Shift is conceived somewhat differently to Wells' diphthong shift. Labov and Ash suggest that the SS is 'composed of four subsets of vowel movements which include both chain shifts and parallel shifts'. Their schematisation of SS (derived from Labov and Ash 1991: 512) is shown below, in Table 3.

Table 3: Southern Shift (following Labov and Ash 1991: 512-4)

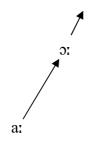
Subset I: "Vw backing"



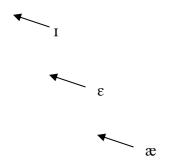
Subset 2: "Vy Chain Shift"



Subset 3: "Vh raising"



Subset 4: "Short vowel tensing"



Labov and Ash argue that Southern Shift is 'the dominant form of chain shifting throughout the English speaking world' today (1991: 512) and is:

"most advanced today in those regions where the Great Vowel Shift has developed to its fullest extent...In Great Britain, the modern Southern Shift reaches its most extreme form in Southern England: London, Birmingham, Berkshire and the Home Counties, Norfolk, Essex, Kent and Southampton. Outside of Great Britain, the Southern Shift is the organising force in the vowel systems of South Africa, Australia and New Zealand. In the United States, the Southern Shift dominates the vowel systems of the dialect areas identified by Kurath and McDavid as the Upper and Lower South, the Gulf States, East and Central Texas and the South Midland, but affects Philadelphia and many areas of the North Midland as well" (1991: 514).

As part of this shift the fronting of the nuclei of backgliding diphthongs 'appears to be the oldest and the most widespread aspect of the Southern Shift' (1991:512). Labov and Ash (1991) make it clear that not all varieties have undergone every part of these four subsets of movements (e.g. the fronting and monophthongisation of /ai/ is a feature of the Southern US, whereas the backing and raising of /ai/ is found in England and the Southern Hemisphere (and a few American locations such as the Outer Banks)), and in some places the changes have been of somewhat different kinds (e.g. following short vowel tensing, Labov and Ash (1991: 513) claim that in Southern England and the Southern Hemisphere the vowels remain short, whereas in the Southern States of the US, they are lengthened and develop inglides). The important part for our discussions here, however, similar to Diphthong Shift, is that /au/ is fronting and raising from an open start-position (Labov and Ash 1991: 513, 518; Labov 1991:23; 1994: 160-61, 172; Labov, Ash and Boberg 2006: 242; Fridland 1999: 283). Labov admits, however, that this starting point is an abstraction, rather than based on empirical evidence from older speakers in the community. He argued that "for a comparative view of the various sound changes now taking place in the stressed vowel systems of American English, we need a starting point that is neutral, relative to all of them. The base that we need must incorporate the output of the Great Vowel Shift, which was completed for all American English with full diphthongisation of ME i and u" (Labov and Ash 1991: 511) adding later that the "point of origin [of sound changes]...must be estimated in a way that is more general than a simple reference to the speech of the oldest members of a particular community" (Labov 1994: 63). With respect to /au/ he argues that "this notation projects .../aw/ as low back (1994: 63)....we can see that the fronting and raising of (aw) to [e:3] has shifted quite far from the point of origin [au] (1994: 64). With respect to locations outside the US, Labov provides evidence that /au/ is realised as front mid-open in two places: London and Norwich. In his plot from 1968 of the vowel system of Marie Colville⁷, a 39 year old woman from Bethnal Green in the East End of London (1994: 169), he showed /au/ considerably higher and fronter than /æ/ (no token of /æ/ was higher than the lowest token of /au/) and overlapping with /e/. Her London compatriot John Gale, aged 23 when recorded in 1968, like Marie, has a front mid-open nuclei of /au/, with some tokens closer than /e/ and closer than some realisations of /i:/ and /u:/ (Labov 1994: 210). Labov, Yaeger and Steiner (1972) show plots for other speakers from London (e.g. Bob Frost from Southall and Tom Gale from Chelsea (1972: 32)), again with front mid-open onsets around or closer than [æ]. The vowel system of Les Branson, aged 42 in 1971 and from Norwich, shows /au/ having a central mid-open realisation behind both /ei/ and /æ/ and above /ɑː/ which, in Norfolk, is not as back as it is further south in London (Labov 1994: 205). Labov, Yaeger and Steiner for Norwich show other speakers with nuclei of /au/ that are not fully open, but also sometimes not fully front either (e.g. David Branson, aged 14 (1972: 36), James Wicks, aged 74 (1972: 34) and Jean Suffling, aged 15 (1972:37).

No evidence, however, is presented of speakers who, if Southern Shift correctly predicts the route of /au/ to [$\varepsilon \upsilon$], used the apparently conservative or earlier form [$a\upsilon$] in these communities. So in neither the Diphthong Shift nor the Southern Shift accounts of the appearance of [$\varepsilon \upsilon$] in Southern England is evidence shown, across real or apparent time, of [$a\upsilon$] \rightarrow [$\varepsilon \upsilon$]. Other scholars, however, have assumed

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⁷ She described herself to Labov as 'a regular Cockney, with none of your airs and graces' (Labov 1994: 169).

that this is the route that /au/ followed to reach front mid-open position. Stockwell and Minkova (1988: 363), for example, talk of "the full set of intermediate steps in the development of Modern English /aw/-types from ME ū-types, namely [ou], [fu] [əu] [au] and the two most advanced....[æu] and [ɛu]", and specifically single out the "the change from [au] to [æu] to [æ:]" in Cockney (1988: 372).

4. Not the way to go: the implausibility of $[a\upsilon] \rightarrow [\epsilon\upsilon]$ in Southern British English.

In this section, I will present a number of reasons why I believe it is unlikely that [$\epsilon \upsilon$] in Southern British English developed as a result of a fronting and raising from [$\epsilon \upsilon$]. Firstly, an examination of the historical dialectological evidence from speakers born from the early 19^{th} century through to the early 20^{th} in southern England shows that [$\epsilon \upsilon$] realisations of / $\epsilon \upsilon$ /au/ were vanishingly absent from this area; secondly, geolinguistic evidence from the $\epsilon \upsilon$ - $\epsilon \upsilon$ - $\epsilon \upsilon$ - realisations are situated alongside areas with, apparently, extremely conservative central nuclei [$\epsilon \upsilon$ - $\epsilon \upsilon$ - $\epsilon \upsilon$ -, with no evidence of nearby [$\epsilon \upsilon$ - $\epsilon \upsilon$ - realisations that one would expect if the chain of variants from most conservative to most innovative was [$\epsilon \upsilon$ - $\epsilon \upsilon$

Historical linguistic evidence from 19^t and early 20th century dialects of Southern England:

The Diphthong/Southern Shift hypothesis for the route that was travelled by /au/ to reach front mid-open position proposes, as we saw earlier, that [au] was an intermediate stage between earlier more conservative realisations, such as [au], which

represent one staging post in the journey of ME u following the Great Vowel Shift on the one hand, and the [ɛu - æu] onsets typical of southern England as shown in Figure 1 above, on the other. An examination of dialectological sources from the 19th century and early 20th century highlights much greater diversity with respect to realisations of /au/ in southern England than the position shown by the data from the Survey of English Dialects data presented in Figure 1 (based on the speech of largely old rural men born in the late 19th century). I draw here on two further studies of the dialects of southern Britain, conducted much earlier than the Survey of English Dialects, which provide us with a revealing insight into the development of /au/ from the early part of the 19th century. These are Alexander Ellis's major survey of British English published in 1889, and Kurath and Lowman's study of southern England, published in 1970, but based on data collected in the 1930s. By exploring these sources, along with the later Survey of English Dialects, we are able to witness the evolution of /au/ among speakers born in the early, mid and late 19th centuries. The Southern/Diphthong Shift hypothesis would lead us to expect to find fully open [au] realisations of /au/ as one of the major transitional variants of /au/ present in the South if we are to believe that [ɛu - æu] realisations represent the outcome of a fronting and raising of /au/ following a full opening of the nucleus as the final part of the Great Vowel Shift from [u:] through [əu] to [au].

Ellis's volume is a traditional dialectological survey, based on evidence – transcriptions of reading passages and small extracts from stories - drawn from over 1100 locations in Great Britain. The data were sent to Ellis by a combination of trained linguists (e.g. Thomas Hallam, a phonetician) and interested locals and in some cases Hallam was sent off to validate the work of the local data collectors as well as investigate some features in greater depth. The data were collected primarily from older people, giving us a picture of the vernacular dialects of people born in the early to mid 19th century. Ellis's work was criticised by some (Dieth 1946: 76), but was, nevertheless, pioneering. Charles Jones claims that it is "an unsurpassed masterpiece of philological scholarship, a work equally indispensable for information on period data, the direction of phonological change, sociolinguistic and regional distribution and, perhaps above all, a work noted for its attention to real observed data

analysed through highly pragmatic eyes" (C Jones 2006: 274), while Mark Jones suggests "his data have been found to be extremely reliable when compared with modern studies of various areas" (M Jones 2002: 332). He was cautious about what we could learn from educated speech, and was wary of word lists because "the fact of the removal of the word from its context, from its notional and phonetic relation to preceding and following sounds, alters the feeling of the speaker so that he has much difficulty in uttering the word naturally" (Ellis 1874, cited in C Jones 2006: 280). Bailey (1996: 72, 73) described him as "the most assiduous of the nineteenth century phoneticians...an observer of minute distinctions". Ellis gives consistent detail for /au/ both at the level of his proposed 42 dialect regions as well, often, at more local levels too.

Kurath and Lowman (1970), part of the *Publication of the American Dialect Society* series, presented the phonological evidence from 56 of the over 90 informants interviewed in southern England either by Lowman in 1937-8 or by Henry Collins who took over the fieldwork after Lowman's death. All of Lowman's informants were over 60, all but three were men and all were rural, almost all employed in agriculture. We thereby get an insight from this research into dialectological patterns of those born in the mid 19th century.

The Survey of English Dialects (Orton 1962), like Kurath and Lowman's work, was a traditional dialectological study, this time of the whole of England and the Isle of Man (but not Wales, Scotland, Ireland, or the Channel Islands), with over 300 informants, again mostly old rural men. The Survey itself presents the 'Basic Materials' from the Survey - IPA transcriptions of each response of each informant to each question posed in a long questionnaire. Anderson (1987) is an attempt at synthesising these materials through cartographic representations of proportions of different realisations found for each 'variable'. In presenting evidence from the Survey of English Dialects, therefore, I resort to the maps from Anderson (1987) to give an overview of the dialect situation in (esp. southern) England, based on quantitative empirical analysis of the SED data.

Figure 3 presents the results of an analysis of Ellis (1889)'s data on /au/ in Southern England⁸. It shows that the dominant forms in the South of England are either front mid-open onsets or central mid-open ones. In the south of England, [au] is restricted, according to Ellis, to Western Cornwall in the far south-west and to *middle class* London speech⁹. Front mid-open onsets dominate in the South east, Southern East Anglia and the Midlands, with central mid-open onsets found in the South-West. Both front and central mid-open onsets were found in Norfolk in East Anglia.

Kurath and Lowman's (1970) findings in southern England from their research in the 1930s are presented in Figure 4. A very similar picture is found to that in Ellis, with central nuclei found in East Anglia and the South West¹⁰ and front mid-open nuclei in the South East and the East Midlands. Kurath and Lowman specifically highlight that "it is noteworthy that the SBE [Standard British English: K&L 1970: 4] type [au] does not occur in the folk speech of the section of England dealt with here" (Kurath and Lowman 1970: 5).

Figures 5, 6 and 7 complement Figure 1 in showing Anderson's (1987) presentation of different variants of /au/ for Southern England from the Survey of English Dialects.

⁸ Ellis used his own transcription system, or palaeotype, that is non-transparent to today's users of IPA. Here, throughout, I systematically use S Eustace's (1969) 'translation' of the palaeotype into IPA. Eustace's paper discusses each palaeotype symbol in turn at length before presenting a summary table (1969: 78-9).

⁹ Ellis finds both front and central mid-open nuclei of /au/ in London, but fully open nuclei are mentioned in a report (1889: 233) on Mr J G Goodchild's report on the English of the East of London, which Ellis labels as "a document of considerable interest to shew the middle class pron. of the district".

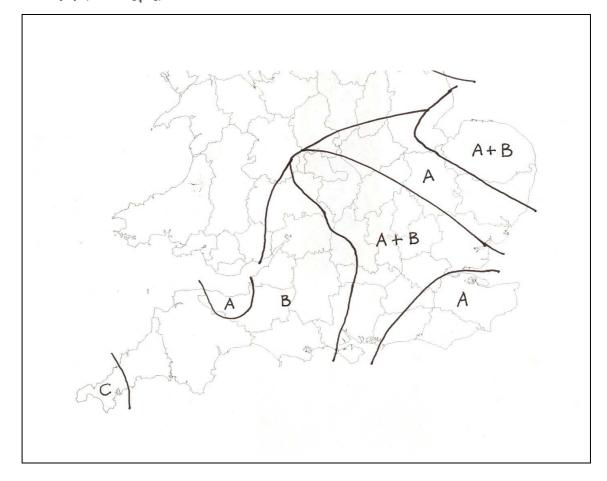
¹⁰ Kurath and Lowman state (1970: 5) "In Norfolk and in all the western counties except Devonshire, ME ū has yielded [əu], occasionally [Δυ - ɐυ]. These are areas in which the reflex of ME ī also has a centralized beginning". They don't go on to say here, however, what the Devon realisation of ME ū is. On Map 29 of Kurath and McDavid (1961), however, where they place an inset map of southern British realisations to contrast with those of the Atlantic states of the US, /au/ is shown as having a central, mid-open nucleus in Devon.

Figure 3: Realisations of /au/ nuclei in Southern England in Ellis's Survey of 1889 (Ellis's palaeographic representations of sounds are placed in { }, to distinguish from IPA realisations in []).

$$A = \{x\}, \{E\} \text{ or } \{e\} (= IPA [x - \epsilon - \xi])$$

$$B = \{\mathfrak{d}\} \text{ or } \{\exists\} \text{ or } \{\mathfrak{do}\} \ (= IPA \ [\mathfrak{do} - \Lambda - \mathfrak{d}])$$

$$C = \{a\} (= IPA [qu])$$

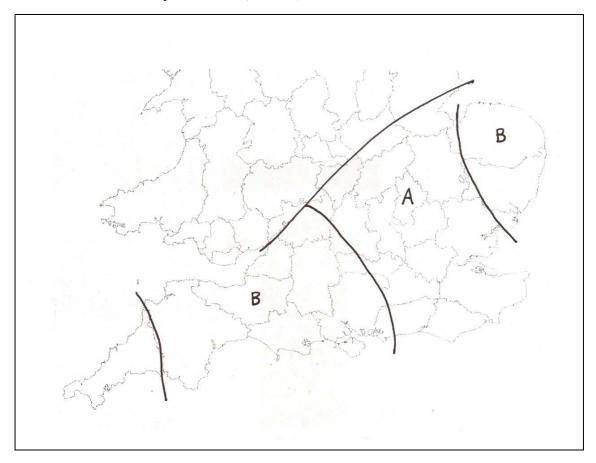


Whereas Figure 1 showed front mid-open nuclei, Figure 5 shows central nuclei, Figure 6 fully open nuclei, and Figure 7 the area of Devon with [œu - œy] realisations of /au/. Like the two surveys before it, the SED highlights the almost total absence of [au] as a vernacular variant of /au/ in the South of England. It has already become clear from Figure 1 earlier that front mid-open nuclei dominate, but again it is central mid-open nuclei that are the most frequently occurring other variant in this area, with concentrations in the West of England, as well as sporadic occurrences in East Anglia.

Figure 4: Realisations of /au/ in Southern England in Kurath and Lowman's (1970) study of the late 1930s.

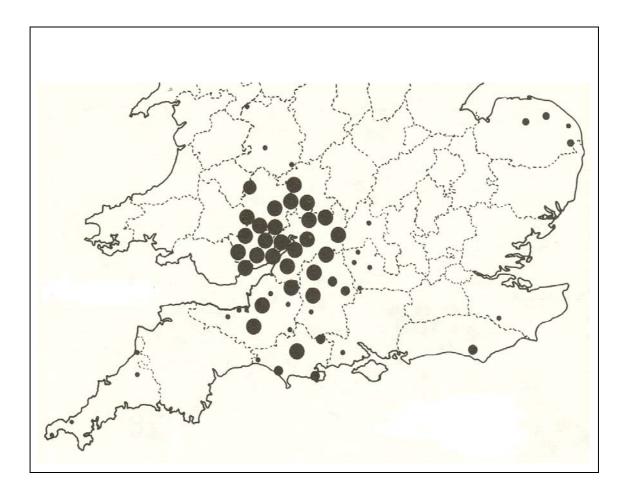
 $A = "[\epsilon \upsilon - \epsilon u - \alpha \upsilon]" (1970: 5)$

B = "[อบ], occasionally [กบ - ซบ]" (1970: 5)



Evidence of the pronunciation of /au/ has been presented here for speakers born from the start to the end of the 19th century covering the period during which front midopen nuclei of /au/ became dominant in the South of England. At no point did fully open [au] variants make an appearance, despite the prevalence, if we are to believe the Southern/Diphthong Shift hypothesis, of forms both more conservative and more innovative than it. Whilst we should retain a healthy scepticism about the nature of the data collected – these were all surveys of a very traditional kind, reliant on on-the-spot transcriptions without the aid of recordings or transcriptions from non-linguists, the three very much independent surveys show a remarkable consistency in the geographical distributions of different variants, with front mid-open nuclei found

Figure 5: Distribution of central mid-open nuclei of /au/ in Survey of English Dialects (from Anderson 1987: 50). The larger the dot, the more dominant the variant in that location.

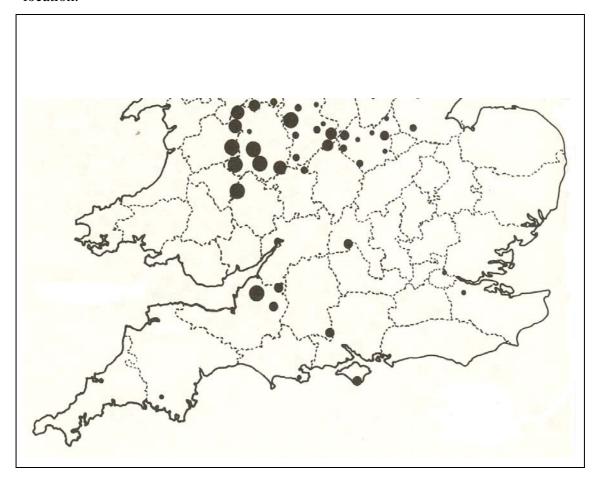


present in the South East and East Midlands in all three surveys, and with central nuclei found in the South-West and East Anglia to varying degrees.

Geolinguistic evidence from East Anglia and the South-West

In order to examine the geographical evidence from Southern England from this crucial period in more detail, I turn now to look in more depth at two areas where we find the apparently most conservative realisations of the South – central, mid-open nuclei of the [əu - ʌu] kind, on the route from [u:] to [au] as part of the Great Vowel Shift – alongside the apparently most innovative realisations [ɛu - æu], variants that have, if we are to believe the Southern/Diphthong Shift hypothesis, travelled a long way from [əu], via [au], to reach the position we saw in the later of the three surveys,

Figure 6: Distribution of [au] variants of /au/ in Survey of English Dialects (from Anderson 1987: 52). The larger the dot, the more dominant the variant in that location.

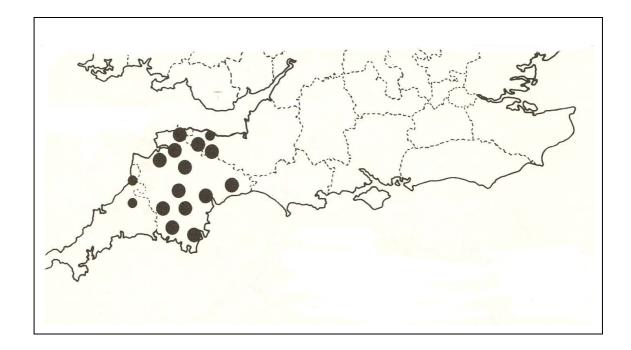


the SED data. These two areas are Norfolk and Suffolk in East Anglia (see Figure 8 below for a map showing the locations mentioned), and the near South-West, the counties of Somerset, Dorset, Wiltshire, Gloucestershire and Hereford (see Figure 9 below).

Ellis, East Anglia and /au/

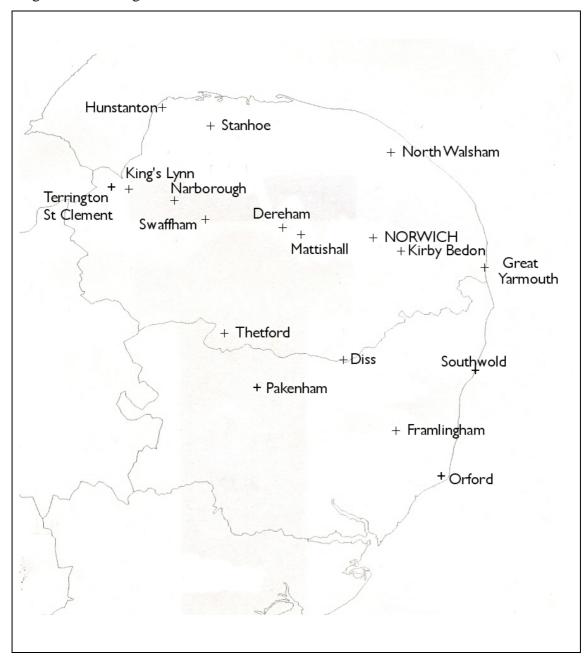
Ellis considered /au/ quite carefully in East Anglia since "the long U words also vary, as $\{ \varepsilon' u, \vartheta' u, \exists' u, \Xi' u \}$ " (= IPA $[\vartheta \upsilon - \vartheta \upsilon - \vartheta \upsilon - \varepsilon \upsilon]$ – see footnote X above). Table 4 below shows the realisations he found in different locations across Norfolk and Suffolk. He finds a wide range of realisations, with both front and central nuclei, but

Figure 7: Distribution of [œu - œy] variants of /au/ in Survey of English Dialects (from Anderson 1987: 53). The larger the dot, the more dominant the variant in that location.



makes no mention whatsoever in the East Anglian data of fully open nuclei being found anywhere in the region. To find plenty of evidence of the apparently most innovative and the most conservative realisations in the same region, without any trace at all of the apparently intermediate form [au] casts considerable doubt on the likelihood of these realisations being accounted for by a change from [au], via [au] to [ευ]. Later surveys, as we have seen, also fail to find [au] in East Anglia. Kurath and Lowman (1970: 7) find evidence of [ευ] making inroads into Suffolk, with [au - Δu] dominant in Norfolk, and the Survey of English Dialects data, presented in Figures 1 and 5 above, show that the variability between [Δu] and [ευ] continued in East Anglia right up to the 20th century, with [ευ] becoming more dominant in the West of Norfolk and in Suffolk. Other early studies of East Anglia confirm this evolution. Kökeritz (1932), for example, in his study of the speech of residents of East Suffolk born between 1842 and 1888, found "εu is a very stable diphthong...with few alternative pronunciations. ε will be found to vary both in the direction of æ...and in

Figure 8: East Anglian locations mentioned in article.



the direction of 3; the latter variant...is particularly common" (1932:65).

The near South-Western counties

Here we also find a complex array of variability, but one which, like East Anglia, does not find a place for fully open nuclei of /au/. Largely central mid-open nuclei of various kinds are found here, with front mid-open ones found in Somerset (see Table 5 below). This pattern is also found by Kurath and Lowman (1970), and the Survey of

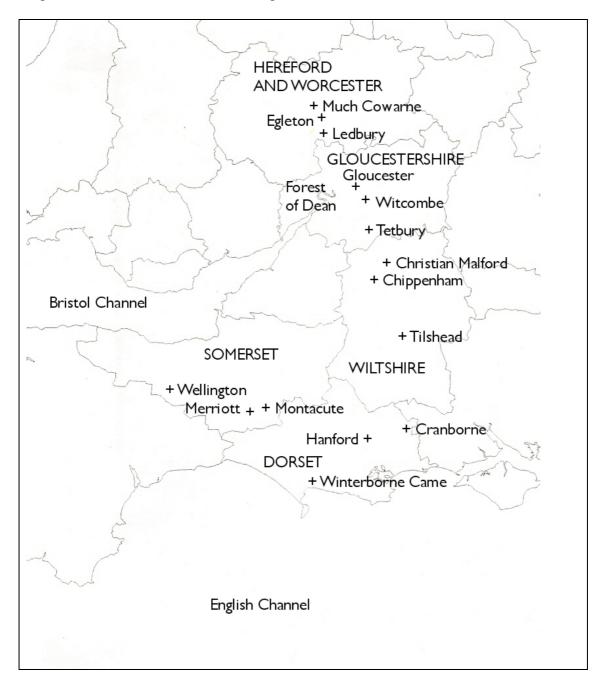
Table 4: Realisations of /au/ in different locations in Norfolk and Suffolk from Ellis (1889: 262-289).

Palaeotype Realisation	IPA Realisation	Locations where this realisation is reported by Ellis
{∃´u}	[ʌʊ]	Swaffham, Narborough, Stanhoe, Norwich, Southwold,
{ E'u}	[EU]	Hunstanton, Stanhoe, North Walsham, Norwich, Great Yarmouth, Diss, Framlingham, Orford, Pakenham
{ə́u}	[30]	Swaffham, King's Lynn, Narborough, Mattishall, Thetford,
{e'u}	[əʊ]	Stanhoe,
{æ'u}	[ɛ̞ʊ]	Kirby Bedon

English Dialects data presented in Anderson (1987) shows, for the places represented here, a combination once more of front and central mid-open nuclei of /au/, with front nuclei no longer restricted to Somerset, but also found in parts of Wiltshire, Dorset and Hereford and Worcester. Wakelin, in his 1986 summary of variability in the traditional dialects of the South-West, states that "The Eastern borders of our area share allophones of /ɛʊ/...with the whole of the South-East, but further West a more centralized/retracted vowel often seems more in evidence as first element ([$\ddot{\epsilon}$] $\ddot{\epsilon}$ [$\ddot{\epsilon}$] $\ddot{\epsilon}$ [$\ddot{\epsilon}$], while in West Somerset front-rounded vowels start to appear as both elements. West Somerset, Devon and Cornwall thus have allophones of the diphthong / $\dot{\epsilon}$ y/ ([$\ddot{\epsilon}$ y] $\ddot{\epsilon}$ [$\ddot{\epsilon}$ u] $\ddot{\epsilon}$ u] $\ddot{\epsilon}$ [$\ddot{\epsilon}$ u] $\ddot{\epsilon}$ u] $\ddot{\epsilon}$ u] $\ddot{\epsilon}$ u) [\ddot

These geolinguistic data from East Anglia and the South-West provide a serious challenge to the Southern/Diphthong Shift hypothesis, because they show that [ɛʊ] forms have arisen and expanded, in the midst of central nuclei but in the total

Figure 9: Locations in South-West England mentioned in article.



absence of the key fully open variants we would need to find in order to provide support for the $[\mathfrak{gu}] \to [\mathfrak{gu}]$ claims of this hypothesis.

Evidence from /ai/

The Southern/Diphthong shift hypothesis would have us believe that the accents in which front mid-open nuclei are extremely innovative, having fully completed the journey from [uː] to [au] as part of the Great Vowel Shift, and then continued moving

Table 5: Realisations of /au/ in different locations in the South-West from Ellis (1889: 37-91, 145-155).

Palaeotype	IPA	Locations where this realisation is reported by Ellis
Realisation	Realisation	
{∃´u}	[AU]	Christian Malford, Chippenham, Tilshead, Witcombe, Much Cowarne, Hanford, Cranborne, Winterborne Came, Montacute, Merriott
$\{Eu\}$	[ευ]	Wellington
{ə́u}	[30]	Much Cowarne, Egleton
$\{\hat{\mathbf{x}}u\}$	[ɛ̞ʊ]	Forest of Dean
{əo'u}	[əʊ]	Gloucester, Tetbury, Forest of Dean, Ledbury, Winterborne Came

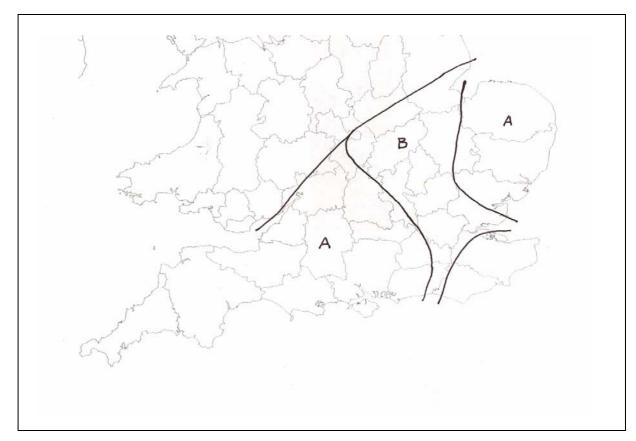
further, fronting and raising to [ευ] as shown in the SED data highlighted in Figure 1. The evidence above from historical and geolinguistic dialectological data casts considerable doubt on this hypothesis, since [aʊ] forms were virtually absent in areas where clear diachronic shifts from [əʊ] to [ɛʊ] were underway. We can cast more doubt on the Southern/Diphthong Shift hypothesis by comparing the apparent hyperinnovative behaviour of /au/ with the fact that, in many other respects, the rural dialects which have front mid-open nuclei of /au/ are rather (or even very) conservative. Indeed, the places highlighted above in the geolinguistic study are the places where one is probably still more likely to find 'traditional' dialect speakers than anywhere else in the South of England. Trudgill's many writings on the English of Norfolk, for example, have shown the general conservativeness of this variety. Compared with the rest of the south of England, it has been late to acquire dark /l/ in postvocalic position (while much of the South-East has been rapidly vocalising its dark /l/), retains reflexes of phonological splits (e.g. ME ou and ME o:) (Trudgill 1974, 1999) that have long since merged in much of the rest of the South, and has

preserved a number of grammatical features, unique in Southern England, which show evidence of its relative isolation from the convergent influences of the South-East, such as third person present-tense zero and do-conjunctions (Trudgill 1995, 1998). Much less is known about the contemporary status of dialects in the South-West, but the region is considered to be linguistically conservative too. Wagner (2004: 172) recently claimed that "a comparison of 18th/19th century features with those in the modern material reveals surprisingly few changes...not that much seems to have changed after all...the South-West is one of the most distinctive dialect areas in the British Isles to this day with a singular combination of traditional features". Wagner's 'modern material' consists largely of oral history materials from the kind of speakers often used in traditional dialectological surveys, and among younger speakers changes are certainly afoot in the South-West (Piercy 2007, forthcoming; see also Britain 2009, for a review of studies of the ongoing loss of rhoticity in this area), but nevertheless a number of distinctive conservative features can still be found there: variability in -s marking across the present-tense paradigm; periphrastic do (Megan Jones 2002; Jones and Tagliamonte 2004; Godfrey and Tagliamonte 1999), and, although on the wane, rhoticity. It seems somewhat incongruous for these often very rural varieties to be generally conservative, but have an extremely innovative realisation of /au/. This incompatibility is all the more stark given the relative conservatism of these varieties with respect to the pronunciation of /ai/, a diphthong often seen as developing in parallel with /au/, albeit perhaps slightly lagging behind (Trudgill 2004: 50). Figure 10 shows the distribution of different realisations of /ai/ across the South of England in Kurath and Lowman's study of the late 1930s and Figure 11 presents Anderson's (1987: 47) analysis of /ai/ from the SED data, showing those locations in the South of England that have central mid-open nuclei [əi - ʌi -AY]. For both the East Anglian and South Western counties examined for /au/ above, these conservative central nuclei of /ai/ prevail - and indeed Ellis's earlier survey shows such nuclei present for most of the South of England (see Britain 2005: 174). The extreme conservatism of /ai/ and the apparent extreme innovativeness of /au/, whilst not impossible, are, it has to be said, extremely unusual.

Figure 10: Realisations of /ai/ in Southern England in Kurath and Lowman's (1970) study of the late 1930s.

$$[IV - Ie - Ia] = V$$

$$B = [\alpha r - \alpha \epsilon - \alpha r]$$

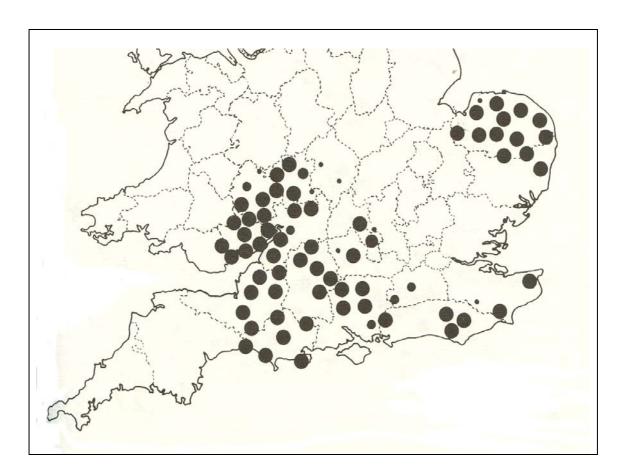


On the right track?: the central nucleus fronting of /au/

The evidence presented above is problematic if we wish to hold on to the view that $[\epsilon \upsilon]$ realisations of /au/ in the South of England are the result of an innovative fronting and raising from $[a\upsilon]$, as Southern and Diphthong Shift predict. I wish to argue here that the more likely route that led to $[\epsilon \upsilon]$ realisations across southern England is *fronting* from central nuclei: $[\epsilon \upsilon - \Delta \upsilon] \rightarrow [\epsilon \upsilon]$. This route demonstrates much greater compatibility with the dialectological evidence.

Firstly, it accounts for the almost total absence of [au] variants in the South of England. As we saw, most of the south used either central or front mid-open nuclei,

Figure 11: Distribution of central mid-open nuclei of /ai/ in Survey of English Dialects (from Anderson 1987: 50). The larger the dot, the more dominant the variant in that location.



with, over time, the latter becoming dominant. The proposal of a $[\ni \upsilon - \lambda \upsilon] \rightarrow [\epsilon \upsilon]$ shift is compatible with, on the one hand, front and central nuclei being found alongside each other in different parts of the south, and, on the other hand, there being no $[a\upsilon]$ variants in the speech communities under discussion here. Secondly, this route helps explain some of the intra-location variability that we saw earlier, especially, for example, in East Anglia (Table 4), where both front and central (but of course no fully open) variants were found in the same town or village, as well as the wide range of central nuclei of differing degrees of frontness that we saw in the data from the South-West (Table 5). Thirdly, it helps us understand why we find such forms in often rather isolated rural parts of the south of England – the fronting shift does not represent such a long 'journey', such a major shift as that proposed by Southern/Diphthong Shift, and we therefore do not need to conceptualise that shift as being a hyper-innovative

one. It demonstrates a somewhat more advanced state than that of /ai/, its Great Vowel Shift partner in diphthongisation and nucleus lowering, and is therefore compatible with relatively conservative variants of /ai/ (and other conservative characteristics of many of these varieties). The two proposals¹¹ to account for front mid-open onsets in Southern England, Central Nucleus Fronting and Southern/Diphthong Shift, are presented in Table 6 below¹².

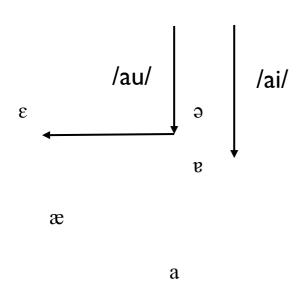
Evidence for the possibility of fronting from a central mid-open starting point is not hard to find. It has been demonstrated by Chambers and Hardwick (1986) as affecting /au/ before voiceless consonants in Canada, as well as by Roberts (2007) for Vermont. It also appears to be an active process in the development of front mid-open nuclei of /au/ in the Falkland Islands (Britain and Sudbury 2008). Kökeritz (1932) suggests that perhaps centre to front is a dimension of variation in traditional Suffolk English. Having commented on the stability of [ɛʊ] in Suffolk, and the possibility of variability in the direction of [ɜʊ], he says "in my transcriptions of the grammaphone records, I have made use of the letter $\ddot{\mathbf{e}}$ to denote this obscure and probably somewhat

¹¹ Kökeritz (1932: 170) actually weighed up the possibilities of these two options. He states "The diphthongization of ME \bar{u} in Suffolk may have followed this path: $\bar{u}\bar{u} > 3\bar{u} (3\bar{u}) > \Lambda \bar{u} > 3\bar{u} > 2\bar{u} = 3\bar{u} = 3\bar{u}$

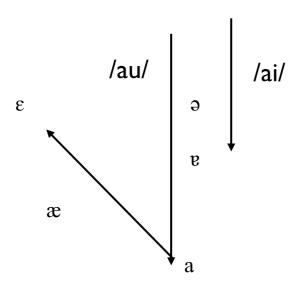
¹² Of course not all varieties which have had front mid-open nuclei of /au/ in Southern England co-exist with central nuclei of /ai/. Some have lower nuclei and some have back, mid-open nuclei. I would want to argue that in a number of varieties of the South-East of England, /ai/ backed before it achieved fully open nuclei (in parallel to some extent with /au/ at the front, but lagging somewhat behind). Evidence for this lies in the presence of back and/or central nuclei of /ai/ in the SED data from South of England, but with little evidence at all of fully open nuclei. Anderson's map (1987: 42) showing the distribution of fully open nuclei of /ai/ is almost as bare for the South of England as it was for /au/. If /ai/ went from [aɪ] to [aɪ] to [bɪ], as Diphthong Shift predicts, why are there no [aɪ] realisations in the relevant areas in the dialectological literature?

Table 6: Two proposed routes to account for the [ευ] variants of /au/ in Southern England, many of which co-exist with conservative variants of /ai/.

a) Central nucleus fronting



b) Southern/Diphthong Shift



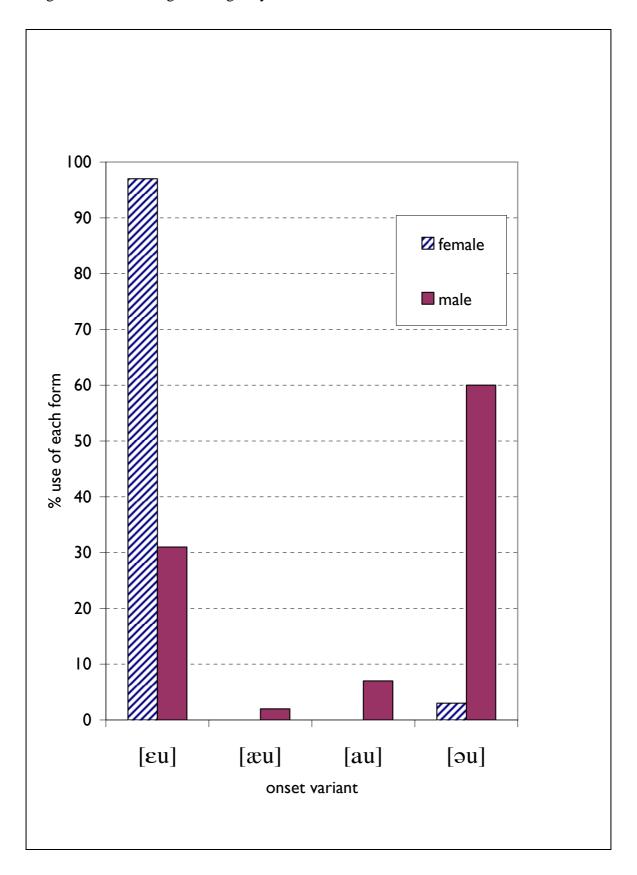
rounded variety of ε , which in some cases may actually approach 3" (1932: 65). I have also found more contemporary evidence of this shift in progress in some recordings from the mid-1980s collected as part of a local history project by the now disbanded Manpower Services Commission from the former fishing neighbourhood of King's Lynn (see Figure 8) known as North End. The North End community was poor, extremely tight knit, and maintained somewhat of a social distance from other residents of Lynn, and their neighbourhood had been demolished following an urban landclearing and renovation project. An analysis of /au/ from the oral history recordings of both male and female Northenders is shown in Figure 12 below. Male speakers predominantly (still) use central nuclei of /au/, with some shift towards [εu], which is clearly the dominant female variant. Few tokens of more open nuclei were found.

Does it matter which way we go?

It seems perfectly valid to ask at this point, so what? Does it really matter how these variants arrived at front mid-open position? First of all, it matters, of course, because it highlights (once again) the very different paths that non-standard varieties of English can take and have taken from those of standard varieties. As was seen earlier, texts on the history of English have been nigh on unanimous in claiming that "English" followed a particular route as part of the Great Vowel Shift, when in fact many, perhaps the majority of Englishes either haven't got there yet, or went a different way.

Secondly, it matters because of much more recent developments in the history of /au/. A number of researchers of accents of the South of England have reported that change is underway, with more traditional [ɛʊ] variants giving way to a more standard-like [aʊ] realisation. This was found in the South-Western Fens in my own work (Britain 1991: 129), and also, for example, by Kerswill and Williams (2000, 2005) in Milton Keynes, Torgersen, Kerswill and Fox (2008) in London and Amos (forthcoming) in Mersea Island in Essex. In parallel with this change, back and slightly raised variants of /ai/ appear to be in the early stages of giving way to, again,

Figure 12: /au/ among the King's Lynn Northenders



more standard-like variants in South-East England (e.g. Fox 2003, 2007, Torgersen et al 2008)¹³. Torgersen et al (2008) have argued, particularly considering evidence from London English speakers of a range of ethnic backgrounds, that these changes could be conceived as reversals of diphthong shift. If diphthong shift originally changed [au] into [ɛu], and now there is a change underway from [ɛu] to [au], then the diphthong could be regarded as having returned to where it started: $[au] \rightarrow [\epsilon u] \rightarrow$ [au]. Whilst such a scenario is by no means impossible, Labov argues that such reversals will only occur "if social pressures are strong enough" (1994: 140), and he cites one sole example, a vowel shift in Parisian French the reversal of which was "led by the most conservative group in Parisian society: upper middle class females" (1994: 139-40). Torgersen et al (2008) can also point to major social pressures which might trigger change in London - recent rises in the numbers and diversity of minority ethnic Londoners, though the changes they plot can only be considered to be a reversal of diphthong shift if the original change was indeed from [aυ] to [ευ]. I have argued here that it was not. The changes afoot in Inner London reported by Torgersen et al (2008) may well simply be the next move of /au/ in a $[\ni \upsilon] \rightarrow [\epsilon \upsilon] \rightarrow$ [au] chain.

Finally, the route this diphthong seems to have taken is in contravention of one of Labov's sound change principles outlined in his 1994 volume. In that volume, Labov makes much of the distinction between peripheral and non-peripheral tracks in vowel space, the former being closer to the extreme front and extreme back of vowel space than the latter, and explains how an appreciation of these can help us understand, for example, how two vowels that took part in some historical vowel shift managed to avoid merger when their trajectories seemed to cross. In the case of /ai/ and /oi/ in Essex, for example, which had been portrayed as having undergone a merger and then subsequently and successfully de-merged, Labov argues (1994: 377-383) that they actually had avoided merger in the first place because /oi/ was

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¹³ We must be cautious of claiming that these changes represent standardisation – in the case of the standard-like variants of /ai/, Fox (2003, 2007) found that the change was being led by adolescents of Bangladeshi ethnicity who in this community do not have a sociolinguistic profile compatible with widespread standardisation.

peripheral and /ai/ non-peripheral. However, vowel movements are such that sometimes the nucleus of a diphthong changes from a non-peripheral track to a peripheral one, and vice versa. Labov argues, for example, that this is what happened at the initial trigger of the diphthongisation of ME i: and u: during the Great Vowel Shift. These long vowels, in a maximally close position, were in peripheral tracks at the front and back respectively, and the diphthongisation allowed the nuclei of both to enter the non-peripheral tracks (and to subsequently lower), following the Upper Exit Principle (Labov 1994: 281). The points at which vowels can change their peripherality status, however, are limited, and in the case of the non-peripheral nucleus of /au/, lowering as part of the Great Vowel Shift, this can only take place when the nucleus is open, following Labov's 'Lower Exit Principle'. Here, "in chain shifting, low non-peripheral vowels become peripheral" (1994: 280), and Labov uses both /ai/ and /au/ as examples of this, outlining (1994: 281) the non-peripherality of the nuclei of these diphthongs until they reach [ai] and [au] respectively after which "the tense nucleus rises along a back or front peripheral track" (1994: 281). The fronting of /au/ proposed here would, in effect, suggest that changes of peripherality could occur outside the restricted positions suggested by the Upper and Lower Exit Principles.

Conclusion

I have argued here that for the history of /au/ in Southern British English, the routes of change proposed by Southern Shift and by Diphthong Shift are implausible. They are implausible because the historical dialectological record does not show evidence, in the right places or at the right times, of the crucial [au] variant of /au/ which these hypotheses rely upon. The historical geolinguistic evidence shows central and front mid-open nuclei of /au/ in co-variation, both within regions and in individual locations, and with [au] variants notable by their absence. Front mid-open nuclei of /au/, apparently extremely innovative, are found in the early 19th century in extremely rural, and, for the south of England, relatively isolated areas, alongside otherwise conservative dialect forms, including conservative realisations of /ai/, often a close historical and dialectological 'companion' of /au/. Instead, I have suggested that /au/ fronted from its well-attested central nuclei to the front mid-open position where it is

still found abundantly in the remoter rural dialects of the South. This 'short-cut' to front mid-open position, in contrast with the much longer route proposed for it by Southern/Diphthong Shift, is much more in keeping both with the relative conservatism of many of the dialects in question and with forms of /ai/ in the same varieties, and is well-attested as a possible route for /au/ both in England and beyond. The proposed route reemphasises the distinctiveness and independence of nonstandard varieties, even in the South of England, from their standard counterparts, avoids having to argue for extremely unusual reversals of vowel shifts in the light of contemporary evidence, and problematises the proposal that switches in vowel space peripherality - a somewhat underexplored aspect of Labov's amazing 1994 volume are restricted to certain positions in vowel space. With strong evidence that the front mid-open variants of /au/ in the Southern Hemisphere speech communities of Australia (Britain 2008b), New Zealand (Britain 2001, 2008a) and the Falklands (Britain and Sudbury) were either largely imported from the British Isles (Australia and New Zealand) or largely avoided fully open nuclei in post-settlement developments (Falklands), this restricts the scope of Southern Shift with respect to /au/ to, at most, the Southern United States.

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