

Review: *The Qualities and Origins of the
Welsh Vowel [i]* (Wmffre)



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The Qualities and Origins of the Welsh Vowel [i]. Iwan Wmffre. Curach Bhán Publications, Berlin, 2013. xx + 172 pp. €25. ISBN: 978-3-942002-12-7.

The work under review presents a highly valuable, wide-ranging study of the phonetics and phonology of Welsh dialects, with a particular focus on the typologically unusual contrast between three (or six, depending on how one counts!) high vowels. The work offers up both a synchronic and a diachronic perspective on the data by an accomplished dialectologist with huge experience of fieldwork (not least for the Welsh Dialect Survey), and will be of significant interest to specialists in Welsh dialectology, Brythonic historical phonology, and general linguistics. The author's main points can be summarized as follows:

- In Northern Welsh, the short ('lax') variant of /i/ is phonetically very close to or identical with the short ('lax') variant of /i/ (the one traditionally transcribed as [ɪ]). This fact has to be taken account of when interpreting traditional dialectological descriptions, particularly those conducted by fieldworkers with a Southern Welsh background.
- It is useful to distinguish between a 'weakly rounded' high central vowel [i] (to which type the realization of stressed long /i/ in Northern Welsh belongs) and an unrounded high central [ɪ], in addition to a rounded central [u] and a lax front [i] as stipulated by the IPA; in addition, all these vowels can have 'lax' (i.e., lowered and centralized) and non-syllabic varieties, for all of which the author suggests transcription symbols.
- The author proposes a diachronic scenario for the development of the high vowels in Brythonic that is different from those suggested by Jackson

(1953) and McCone (1996). In particular, he dates the rise of the 'new quantity system' (i.e. the establishment of predictable vowel length according to consonantal context) to a much later date than usually allowed. On the other hand, he offers a scenario for the development of the short high vowels of Brythonic that involves a much earlier merger of several vowels as [i] compared to Jackson's and McCone's scenarios, which both postulate a relatively long period with a rich system of central vowels.

The book contains a wealth of information about the synchronic status and diachronic development of many relevant features of Welsh, much of it unavailable elsewhere, and is therefore a very valuable source. This should always be borne in mind even if in the following I express a number of disagreements with the author's proposals or interpretations.

Chapter 1 briefly surveys the vowel systems of modern Welsh dialects and outlines some of the notational devices traditionally used in the literature. It also introduces the 'double slash' notation, used in previous works by the author, whereby, say, '/e/' refers to *e*-type vowels irrespective of their length and/or tense/lax specification (i.e. [e:], [ɛ], and, where applicable, also [e] and [ɛ:]). This is a highly useful device, since the status and phonological relevance of both length and tenseness in Welsh are contested. The author spends some time on the fact that generally long vowels are seen to be 'tense' and short vowels are seen to be 'lax'. Sources are in fairly unanimous agreement about this with respect to South Welsh varieties, but, as discussed in this chapter, this is less clear for Northern Welsh. In particular, there is some evidence for the existence of lax tense vowels [ɛ:] and [ɔ:] in Northern Welsh, both in descriptions and in the Welsh Dialect Survey (Thomas 2000). Even so, the author claims, tense variants predominate even in North Welsh (p. 7). Here, it would have been useful to give the actual numbers from the Welsh Dialect Survey material.

The author then introduces 'the problem of /i/' (§3), discussing both the fact that its target pronunciation is difficult to acquire for speakers of other languages and perhaps even of other dialects of Welsh. The author gives here a number of examples showing that South Welsh speakers may hypercorrectly use /i/ even where Northern Welsh has /i:/; I confess the relevance of these examples is less clear to me, given that such hypercorrection surely has to do with the simple fact of /i/ and /i:/ having merged in the south (and the speakers having difficulty undoing the merger), rather than with any particular complexity inherent to the /i/.

The author then goes on to discuss the dialectal limits of /i/, paying particular attention to claimed attestations of /i/ in South Welsh dialects (§§4–5). It is suggested that such claims do not represent survivals of historical /i/, but instead have to do either with a more general lowering of word-final unstressed vowels (which affects both /i/ and /u/), as in some Glamorgan varieties, or with attempts by informants to accommodate to a Northern Welsh-speaking fieldworker, as with Glyn Jones's work with Breconshire speakers.

Chapter 2, 'The actual realizations of /i/', contains an exhaustive discussion of the phonetic reality behind the spellings <y>, <i> and <u> in Northern

Welsh, set against a typological background. The phonetics of the tense //u// are discussed in a short section (§6), which also contains some preliminary information on the poorly understood regional variation in the realization of this vowel in North Wales. The much longer section on lax <u> (§7) argues that lax <i> and lax <u> in Northern Welsh are very similar phonetically both to each other and to south Welsh lax [ɪ], as well as the English KIT vowel (using the terminology of Wells 1982). Evidence to this effect is adduced from English loanword adaptation (where KIT can be adapted as both <i> and <u>), examples from existing auditory accounts, and a large meta-study of traditional descriptions, many of which come with vowel diagrams charting the position of vowels in the phonetic space: the author rejects criticism of such diagrams (based apparently on auditory or even proprioceptive impressions). Perhaps somewhat surprisingly, he does not mention the acoustic study by Mayr & Davies (2011), who achieve a very similar result, in that short //i// and short //ɪ// are, for North Welsh speakers, quite similar acoustically, and indeed some speakers in their study did not appear to make a distinction between them.

The chapter also contains some highly pertinent and intriguing observations regarding the all-too-often neglected matter of vowels in unstressed final syllables. As the author notes, in most if not all dialects of Welsh high vowels (including //i// in North Welsh) are realized as lax in final closed syllables and as tense word-finally.⁵ In the case of //i//, he claims that the difference between tense [i] (as in *gwely* ‘bed’) and lax [ɪ] (as in *melyn* ‘yellow’) appears to be less perceptible to speakers (and fieldworkers) with a Northern Welsh background than to those with a Southern background — and conversely, that Northern Welsh speakers have less of a problem distinguishing between the [i] of *melyn* and the [ɪ] of *melin* ‘mill’ compared to South Welsh speakers. He claims that this is due to the fact the vertical dimension in vowel space (i.e. the ‘tenseness’ distinction between [i:] and [ɪ], [e:] and [ɛ] etc.) is more salient in the south, whereas in the north it is less important than the ‘horizontal’ distinctions of relative frontness. This accords well with the fact that, as noted above, the tenseness distinction between short and long vowels is not as securely attested in traditional descriptions of North as of South Welsh. This is a good example of a specific claim that could be tested using perceptual experimentation.

After a very brief discussion of the non-syllabic (‘glide’) versions of the relevant vowels, the author moves on to a typological discussion of high central vowels in other languages, including Irish, Swedish, Norwegian and Russian. This is a welcome ambition, inasmuch as, as far as I am aware, no such comparison has been attempted before. However, the discussion in this chapter unfortunately leaves a lot to be desired. The examples the author adduces are, in order, <ao> in Connemara Irish, the long and short <u> of Eastern Norwegian and Central Swedish, the Swedish ‘Viby-*i*’, and Russian <ы>. In all of these cases the discussion deserves further comment.

⁵He also claims, with reference to unpublished work, that word-final //e// and //o// are phonetically lax [ɛ ɔ], despite many descriptions claiming the opposite; this is also shown acoustically by Iosad (2017).

With respect to Connemara Irish, the author claims that <ao> is pronounced as a raised version of IPA [i:], which he proposes to transliterate as [i:], adducing examples such as *caora*, *lao*, *gallaoireach*, *saothrú*, *caoch*, and others. His sources are De Bhaldraithe (1945) and the transcriptions in LASID (Wagner 1958–69). The author transcribes the sounds as a monophthong [i:] distinct from [i:], even though he also mentions the coarticulatory effect of surrounding consonants described by De Bhaldraithe. This seems to me to undermine the credibility of the account: after all, as acoustic studies have reliably shown (see notably Ní Chiosáin and Padgett 2012), Irish long [i:], especially in the neighbourhood of a broad consonant, cannot be described as a monophthong because of the strong formant transitions, and moreover that these transitions may be strong enough that the quality of the vowel even at the midpoint is not necessarily identical to that of long [i:] when no broad consonants influence it. The coarticulation is exemplified in fig. 1 (taken from a Munster Irish speaker from West Kerry pronouncing *coim*), where the second formant (the second dotted line from bottom) of a long [i:] shows significant influence from the preceding velar, so that the target state (the steady state at about 2,500 Hz) is only just about reached by the midpoint of the vowel.

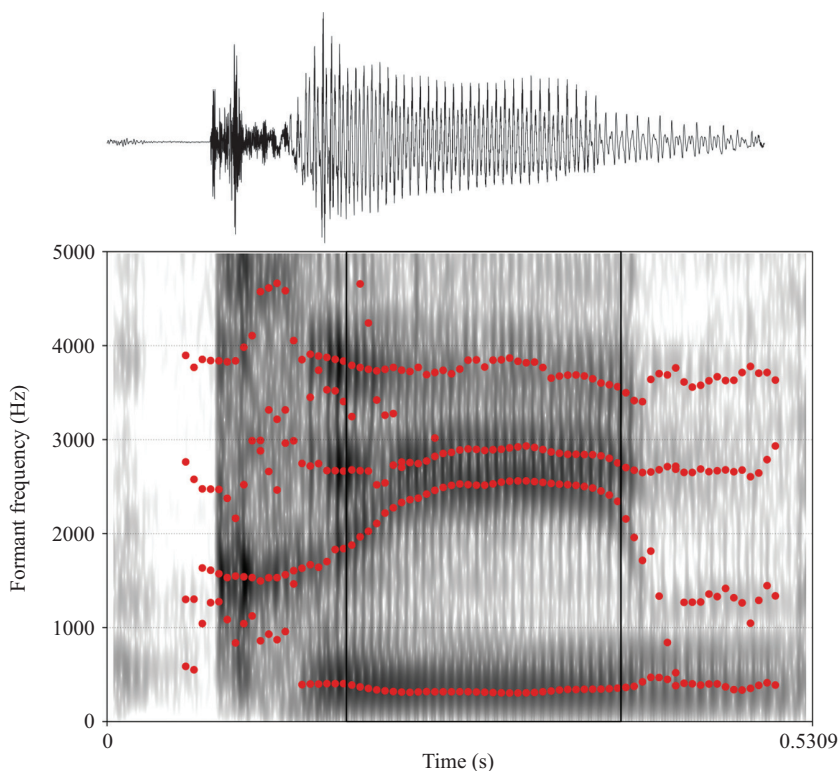


Fig. 1: Coarticulation of long [i:] in Irish.

Much the same criticism applies to the author's treatment of the Russian <ы>; he describes it as variable in quality, but suggests that the canonical realization is a short variant of the same sound he ascribes to Connemara Irish <ao> and transcribes as [ɪ]. Once again, it has long been known that Russian <ы> is phonetically not a monophthong but instead represents almost exactly the same vowel as <и> on which are superimposed strong formant transitions signalling the velarization of the preceding consonant; see, for instance, the results of acoustic studies by Keating (1987) and Padgett (2001).

A particularly detailed discussion is devoted to the high vowel systems of Norwegian and Swedish (pp. 50–63). Although clearly relevant to the issues, it would seem that this section would benefit from more engagement with specialist literature, as it relies to a not insignificant extent on pedagogical materials, impressionistic descriptions, Internet sources such as Wikipedia articles (and even Wikipedia talk pages) and YouTube clips (and comments on them), whilst reference to literature, particularly instrumental studies, is rather limited. In some cases this leads to unfortunate problems and oversimplifications. For instance, on p. 51 the high vowel system of Norwegian is given as [i: y: ʊ: u:] for the long vowels and [ɪ ʏ ʊ] for the short vowels, with a reference to Kristoffersen (2007: p. 12) (itself a paperback reprint of Kristoffersen 2000); there is, however, no vowel chart on p. 12 of Kristoffersen (2007); a list is given on p. 13, but it does not indicate any quantitative difference between long and short high vowels. The formant plots given by Kristoffersen on p. 17 do appear to indicate a difference at least between [y:] and [ʏ]. Moreover, the author treats (Eastern) Norwegian and (Central Standard) Swedish as representing a homogeneous variety of North Germanic, with reference to the notion of 'Central Scandinavian' (Haugen 1976); however, it is not at all clear that such a generalization is warranted with respect to the pronunciation of the high vowels: indeed, Kristoffersen (2007: 14–15) provides a discussion making it clear that significant variation in these systems has been described in the literature both within Norwegian and between Norwegian and Swedish. The author also discards the description of Swedish in his source (the illustration of the IPA for Swedish in the IPA handbook), which shows a qualitative difference between long and short *i* and *y*, on the basis, in part, of comments on the Wikipedia talk page. However, this would appear to be premature: numerous reputable sources, while acknowledging that the Swedish short [ɪ] is not as centralized as its English or German counterparts, nevertheless note a qualitative difference in this case: see, for instance, Riad (2014: §2.2), with references to phonetic studies, or Bruce (2010: 118). In other words, while the author may be right in seeing long and short [i] and [y] as less qualitatively distinct than, say, in English, it is not clear that there is *no* quality distinction at all.

The author also dedicates a significant amount of space to the discussion of the 'buzzed' Swedish vowel [iʔ] (the so-called *Lidingö-i*, or *Viby-i*), claiming that it is identical to Northern Welsh [i̥] – a very interesting claim that, however, would need to be confirmed experimentally. It is clear that *Viby-i* shares some acoustic properties with Welsh [i̥], notably a lowered second

formant; however, as Bruce (2010), among other sources, discusses, it may be that only some instances of that vowel can be described as central. Overall, it must be concluded that although a typological discussion of Welsh central vowels is surely an important desideratum, much more remains to be done in this field.

The synchronically oriented portion of the book ends with a suggestion to revise the IPA to reflect the author's findings (§11). The author is well aware of the tentative nature of his conclusions; even so, he is clearly not alone in finding the current IPA provisions unsatisfactory, at least for Welsh: Mayr & Davies (2011) also call for the introduction of a symbol for the centralized counterpart to [i] (i.e. [ɪ]), given that it is clearly different from [i] in Northern Welsh. It is less clear that the cross-linguistic phonetic variation described by the author should be served by a proliferation of IPA symbols: after all, separate symbols tend to be used in the IPA only for distinctions that can be demonstrated *within* a language. This can indeed lead to deleterious consequences, such as the use of 'lax' symbols [ɪ] and [ʏ] for Swedish short vowels, which highlights the difference vis-à-vis their long counterparts [i: y:] but runs the risk of conflating them with 'ɪ' and 'ʏ' in, say, English, from which they are different. Nevertheless, it is less obvious that such cross-linguistic distinctions should really motivate the introduction of separate symbols. This is a serious point, not just from a purely organizational perspective of stewarding the IPA standard, but also conceptually. Specifically, reifying a difference using separate IPA characters assumes the existence of a universal standard of cross-linguistic phonetic categories against which individual languages can then be compared to identify each particular phone – an assumption that can be very problematic indeed (for extensive discussion, see Ladd 2014).

Chapter 3 ('Historical development') focuses on the diachrony of high vowels in Brythonic Celtic. The author offers a new perspective on both the development of high vowels specifically, and of the vowel systems of Brythonic varieties in general, and this chapter represents an important advance in many relevant respects. In particular, the author presents an analysis of the developments that postulates a simpler inventory of central vowels than existing proposals by Jackson (1953) and McCone (1996).⁶ In particular, he strongly rejects the existence of an intermediate stage **i* for the product of *i*-affected short **u* and **o* in Cornish and Breton, preferring instead to see the *i*-affected high back vowel (a lax [u]) directly changing into [ɪ] (and then merging with the Proto-Brythonic short **i*, with subsequent lowering to *e*). The discussion here is very interesting, although it would have been easier to follow if example words and etymologies were given throughout, rather than sporadically (as on p. 102). The author also offers an important update of Jackson's (1967) account of the relationship between Welsh and Breton vowels (particularly the Breton *o* <> Welsh *w* correspondence) in §18.

⁶The author does not mention the recent account of the Brythonic vowel developments by Schrijver (2011).

The discussion is set within the broader context of developments of the Brythonic vowel system. In particular, the author discusses the date of the unrounding of Welsh **u*: whilst much previous work assumes that it was a rounded vowel in Middle Welsh (either [y] or [u]), it is less clear when this unrounding happened. The author adduces evidence from metalinguistic comments and spelling that it was rounded until at least the 16th century, and offers some very tantalizing hints that it may have survived even until the 1800s in parts of Wales, although the issue clearly requires further research. This discussion is very valuable, even if one could take issue with some of the argumentation: for instance, the author's example of potential confusion between [u] and [i], which he adduces to posit a perceptual closeness of the two vowels to motivate Old Welsh spellings with <i> of words that would have [u], is unfortunate: he mentions Irish English [ʃʊd] 'should' being misheard as [ʃid], but given that *should* is a function word, it is not clear that we are not dealing here with an unstressed, or restressed, [ʃʊd] misheard as having the very centralized KIT vowel characteristic of Northern Irish English.⁷ The author also suggests that the adaptation of the name of Bristol (Old English *Brycgstow*) with Old Welsh *ou* demonstrates that the glide in the OW diphthong must not have been fronted; however, one could well imagine that even a diphthong like [ou] or [ou̯] could be used for [ow] if it was the *closest* match available in the native system rather than an *identical* one.

After providing some important examples showing a relationship between *e* and historical short *i* (i.e. [i]) in §14, the author moves to a discussion of the diphthongs <ae, oe>, which contrast in modern Welsh with diphthongs with a high glide. He argues that the glides in these diphthongs underwent a lowering to [e], with the entire sequence then becoming disyllabic and merging with historical hiatus sequences [ae œ] (as in *maës* 'field') — the claim is that this merger supports the proposal that its outcome was disyllabic, although this does not seem logically necessary. These disyllables then undergo a variety of developments in dialects, including loss of the second element, a reversal of the change with the second element becoming a glide again, and a shift whereby the [e] becomes the syllable nucleus (as in south-western Welsh *wēs* for *oes* 'is.interrogative' or Breton dialectal *kwad* for *koad* 'forest'). This is an interesting proposal and it is to be welcomed that the history of these diphthongs is considered in concert with the developments of the high vowels, but the author does not appear to engage with all the sources of potential evidence. In particular, the claim that historical diphthongs in items such as *daear* 'ground' became disyllabic sequences ([daear]; p. 78) appears to require treating them as exceptionally proparoxytonic: after all, we do know that stress rules tend to treat sequences with hiatus regularly (as evidenced by final stress in modern words that descend from hiatus sequences like *Cymráeg* 'Welsh language', *cyfléus* 'opportune'), so we would expect [daear] and the like to be stressed [da'e(:)ar] unless it was marked as exceptional, but it is not clear whether such exceptions would be tolerated. It would also seem that positing a disyllabic

⁷Thanks to Warren Maguire for discussion of this example.

sequence is not necessary to explain outcomes like *we* for *oe*: such ‘syllabicity shifts’ can happen with diphthongs too, witness examples like breaking in West and North Germanic: PGmc **gebō* ‘gift’, Old English *giefu*, *geofu* with various falling diphthongs, but Old Norse *gjǫf*, with no suggestion of disyllabicity at any point. (See also Band-Dijkstra 2015 for metrical issues with this analysis.)

In §16 the author provides a valuable discussion of the evidence for the rise of the so-called ‘new quantity system’, whereby there is a deterministic relationship between the length of stressed vowels and the quality of the following consonant, characteristic of the vast majority of modern Brythonic varieties, setting it within the context of developments discussed elsewhere in the book. The basic claim is that the establishment of this system in Welsh at least must be dated to a much later date than normally assumed, with the modern systems only taking shape in the 16th century. This is a very welcome discussion of a subject that has not received substantial attention in the literature. It is, however, rather difficult to follow, in particular because a key distinction – that between ‘distinctiveness’ and ‘salience’ (both of which can belong to either consonants or vowels at different stages) is nowhere explained in detail. This makes it difficult to evaluate the evidence for the changes involving consonant and vowel distinctiveness and salience listed on p. 84. The phonemic status of length in Welsh vowels is a subject that has attracted considerable attention from specialists in phonology (e.g. Thomas 1966; Wells 1979; Jones 1984; Iosad 2017), and a discussion of the criteria used to establish ‘distinctiveness’ would have been useful here.⁸

Evidence for the reduction of ‘consonantal salience’ in the Middle Welsh period comes from the erosion of the *trwm ac ysgafn* rhyming rule in unstressed final syllables, i.e. the appearance of admonitions to avoid rhymes such as *calon* (earlier *calonn*) : *afon*; this is tentatively dated to the 13th century. What is not made clear, however, is the exact relationship between the loss of the geminate-singleton distinction for sonorants in unstressed ultima and the status of the same distinction in stressed ultima (where it is preserved in all modern dialects) and in stressed penultima (where it is preserved in South Welsh). The discussion here suffers also from a lack of attention to the fact that whilst length is not *distinctive* in North Welsh penultima (i.e. pairs such as *cannu* ‘bleach’ : *canu* ‘sing’ are homophonous), the post-tonic *consonant* is normally realized with length (much as it is in South Welsh after short vowels in stressed penultima), hence [kan·i] rather than [kani] (p. 91); see, for instance, Williams (1999); Webb (2011). The author rightly notes on p. 89 that consonant length ‘tends to be ignored’ in transcriptions, but his own inconsistent practice in this respect makes the evaluation of many claims more difficult.

An interesting question is raised by the author’s description (p. 90) of references by historical linguists to a ‘half-long’ [ə] in words like *llydan*

⁸Relatedly, the author never explains the significance of transcriptions given in bold type; this is obviously meant to be different from both (narrow?) phonetic transcriptions given in square brackets and (presumably) taxonomic phonemic ones given in slanted brackets; however, the level of detail given in the bold-type representations differs across the book, and the representation of detail such as consonant length appears inconsistent.

‘broad’ as a ‘surprising mistake’: he insists that /ə/ in Welsh is ‘never long’. However, this claim may need to be nuanced. It is of course true that /i/ in Welsh does not have a phonologically long counterpart in the way that [i] has a long counterpart [i:] with which it alternates. However, references to a half-long [ə̃] appearing in contexts where vowels are otherwise long can be found in descriptions produced by experienced dialect specialists such as Awbery (1986). That [ə̃] can indeed be somewhat longer in ‘long’ contexts such as those before voiced stops or sonorants appears plausible, given the widespread tendency for vowels to be longer before voiced consonants (e.g. Keating 1984). This can be illustrated in figure 2, which shows duration of [ə̃] in comparison with [i] in a corpus of acoustic data from 8 speakers of South Welsh. It demonstrates that, on average, [ə̃] before a voiceless stop is about as long as [i] in the same context; but [ə̃] before a sonorant (where it is phonologically short) is appreciably longer than contrastively short [i] before a sonorant, although not as long as a contrastively long [i:] in the same position. It is thus quite possible that descriptions referring to ‘half-length’ for [ə̃] at least in some positions are not as far off the mark as the author suggests. Moreover, the author also argues that /ə/ cannot be long because it is derived exclusively from unstressed vowels that cannot be long; and yet in §19 he proposes just such a scenario whereby medieval Welsh **ɨ*, deriving from short **u* in a stressed final syllable, is able to undergo lengthening and tensing to [u:] during the establishment of the modern quantity system (i.e. in words like *cŵn* ‘dogs’).

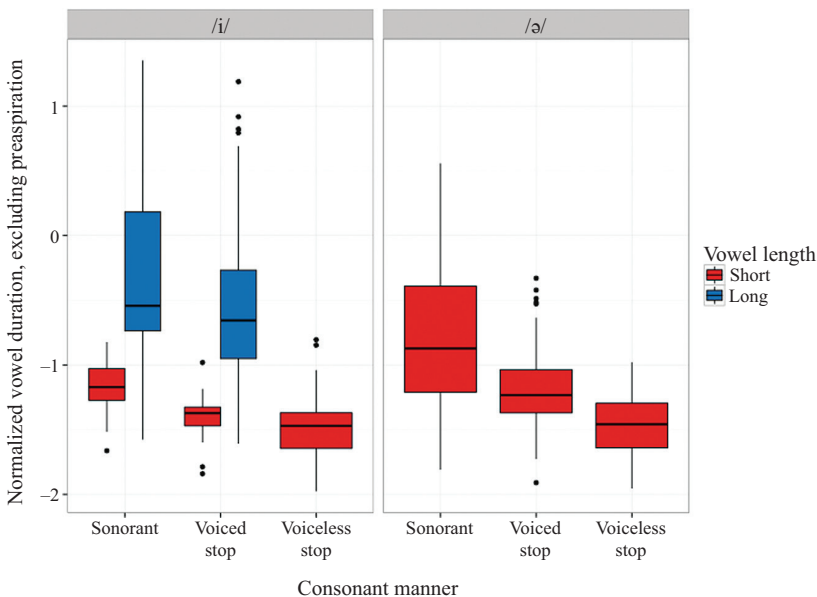


Fig. 2: Duration of [ə̃] and [i] in South Welsh.

Although most of the arguments are presented in an understandable manner, they are sometimes difficult to follow. This is not surprising given their often intricate nature, but it is not helped by numerous forward references or odd ordering choices: for instance, the author repeatedly refers to a ‘fudged merger’ (meaning a merger of two sounds whose outcome is some kind of phonetic compromise between the two), but only explains it in footnote 185 on p. 112 (of 128 pages of main matter). The presentation of posited sound changes would have benefited immensely if example items and historical derivations were given alongside the discussion in §17 rather than at the very end of that section and in §18. Similarly, the discussion of the typology of high vowels in §10 would have been much easier to follow if the proposed distinctions and symbols, which are collated in a straightforward table at the end of the section, had been presented upfront rather than introduced ad hoc as and when needed in the discussion. On the other hand, the final section (§20), which reiterates the main arguments and conclusions of the book, is very welcome, as are the appendices, in particular Appendix 1, which lists a large number of extant dialect descriptions together with the origin of the fieldworkers and (in the case of University of Wales dissertations) supervisors – this will be invaluable for anyone dealing with these sources.

The book is nicely typeset (even though it must have presented a formidable typographic challenge) and well edited, despite a small number of slips: for instance, on p. 4 Norwegian is given as the example of a language with backing of long low vowels (i.e. a distinction between /a/ and /ɑ:/) – this seems to be a slip for Swedish, since in Norwegian both long and short *a* is generally [ɑ]; on p. 13 [gi:ra] is given as an example of [i(:)] for ‘orthographic <i>’ despite the spelling *geiriau*; on p. 94, the commentary on fig. 32 mentions the vowel /ɛ:/, which is absent from that figure.

As the length of this review alone indicates, this is a highly original and thought-provoking book. The author is to be congratulated on raising a plethora of interesting questions, and the union of systematic descriptions of modern dialects with various kinds of written evidence, including manuscript spellings, metalinguistic comments, and borrowings between English and Welsh is surely the only correct approach to tackling important questions surrounding the phonological developments in the period between Old Welsh and the modern dialects, where numerous gaps still remain in our knowledge. I can also only endorse the author’s call for more controlled, instrumental studies of Welsh dialects – especially now, with the advent of easily available technology and free, easy-to-use acoustic analysis software such as Praat (Boersma & Weenink 2016), the time is ripe for an updating and elaboration of the rich mine of traditional descriptive sources available for Welsh. In the meantime, scholars will do well to turn their attention to the many issues raised by this important contribution.

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