## New Perspectives in Celtic Studies

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Edited by
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and Maciej Czerniakowski

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## Preface

This volume provides accounts of well-established themes of general Celtic inquiry from new theoretical perspectives, as well as addressing new areas of research that have remained largely unexplored. The collection includes contributions by both established and young scholars on diverse aspects of culture, literature and linguistics, reflecting the multidisciplinary character of current trends in Celtology.

The linguistic section of the book includes chapters which deal with the problem of Welsh vowel length analysis, the phonological representations of diphthongs produced by speakers of Welsh and English dialects in North Wales, and which also consider the grammar of English and the Celtic languages in an attempt to provide coverage of the possible areas of the influence of Celtic on English. This section also discusses aspects of the Celtic and Welsh legal systems in The Four Branches of The Mabinogi in their Polish translations, and the perplexities of standardising Irish orthography and font, a problem often neglected by Celtic linguists.

Part II of the volume is devoted to literature and considers largely unexplored aspects of Celtic writing and culture - namely the concept of hiraeth in Fflur Dafydd's Welsh-language novel Atyniad, the notion of Welsh national identity in the travel poetry of Iwan Llwyd seen as a postcolonial traveller, and a (post)colonial perspective on the work of T. Llew Jones, a Welsh-language children's author who is considered the "king of children's literature". Other contributions include an equally pioneering exploration of the Scottish production Devil Girl from Mars in the broader context of a discussion on post-humanism, and the locating of John Cowper Powys's novel Owen Glendower in the generic traditions of the historical novel by exploring its connections with reading, remembering, intertextuality and identity.

Approaching these issues from different angles and using different methodologies, the collection highlights the connections between longestablished academic areas of interest and popular culture, broadening the horizon of Celtic scholarship.

Aleksander Bednarski
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## PART I:

LANGUAGE

## Chapter One

## Prolegomena to a Study of Welsh Vocalism

## SABINE ASMUS AND CORMAC ANDERSON

## 1. Introduction

As is true of other areas of Welsh linguistics, e.g. word formation, much work remains to be done in Welsh phonology. Although a number of publications have addressed critical issues in the phonology of the language (e.g. Welsh Phonology, ${ }^{1}$ The Phonology of Welsh ${ }^{2}$ ) or have described specific dialects (e.g. "Phonotactic constraints"; ${ }^{3}$ Cyflwyno'r Tafodieithoed $d^{4}$ ), the research done to date is only inadequately reflected in teaching materials and reference books. ${ }^{5}$ Furthermore, existing research is often founded on inaccurate or insufficient data (e.g. "Quantity Issues in Welsh" ${ }^{6}$ ), or is methodologically unsound ("Cross-Dialectal Acoustic Study ${ }^{" 7}$ ) and has rarely been subjected to experimental confirmation. ${ }^{8}$

[^0]The need for an accurate language description of Welsh is particularly important given the high percentage of learners of this tongue, who indeed far outnumber Welsh native speakers and completely dominate in some areas, such as in the South East of Wales. ${ }^{9}$ Instead, as in other areas of linguistics, unclear and partly contradictory rules and guidelines are to be found concerning Welsh pronunciation in the relevant literature. ${ }^{10}$ One of the best known common assumptions regarding Welsh phonology is that a vowel-length distinction is phonemic in the sound system, a presupposition which is questioned here, at least as regards monosyllabic words. ${ }^{11}$

A further problem confronting learners is the irregular use of transcription methods, mostly any kind of "imitated pronunciation", ${ }^{12}$ and poor guidelines concerning orthography. As regards the former, the transcriptional conventions of the IPA are nearly completely absent in works orientated towards the learning of Welsh. Insofar as the latter is concerned, an increasing number of diacritics have made their way into Welsh orthography, without however any consistency of use or justification as to their necessity, e.g. clôs/clos 'close, humid' vs. clòs 'yard' ${ }^{13}$ and brêd/bred 'braid', brîd 'breed'. ${ }^{14}$

The circumflex has been used in native Welsh words to varying degrees since the Renaissance (1536-1660/89), ${ }^{15}$ i.e. by humanists ${ }^{16}$ such as Dr. John Davies (1567-1644) in his dictionary Antiquae Linguae

Study of North Welsh Voiceless Fricatives," in Proceedings of the International Conference of the Phonetic Sciences 16 (2007): 873-6.
${ }^{9}$ Cf. Heinz, Welsh Dictionaries in the $20^{\text {th }}$ Century.
${ }^{10}$ For instance in Bruce Griffiths and D.G. Jones. Geiriadur yr Academi. The Welsh Academy English-Welsh Dictionary (Caerdydd: Gwasg Prifysgol Cymru, 1995) henceforth referred to as $G y A$. As regards the main focus of this paper, i.e. vowel length in Welsh monosyllables, compare also the contradictory statements in Awbery "Phonotactic Constraints," 66; Jones "Distinctive Vowels and Consonants," 53ff.; Peter Schrijver, Studies in British Celtic Historical Phonology (Amsterdam: Rodopi, 1995), 62f. and GyA.
${ }^{11}$ Cf. Ceri Lewis, ed. Orgraff yr Iaith Gymraeg (Caerdydd: Gwasg Prifysgol Cymru, 1987), 18.
${ }^{12}$ Cf. Heinz, Welsh Dictionaries in the $20^{\text {th }}$ Century, 435-450.
${ }^{13}$ For further meanings, cf. Thomas, R. J., Gareth A. Bevan and P. J. Donovan. Geiriadur Prifysgol Cymru, Caerdydd: Gwasg Prifysgol Cymru, 1950-2002 (henceforth GPC).
${ }^{14}$ Vowels before /-b -d -g/ are regularly long anyway and certainly require no circumflex.
${ }^{15}$ Heinz, Welsh Dictionaries in the $20^{\text {th }}$ Century, 101.
${ }^{16}$ Ibid., 111-159.

Britannicae Dictionarium Duplex from 1632. ${ }^{17}$ However, this was a time when comprehensive studies of Welsh pronunciation remained in a premature state. ${ }^{18}$ Originally, the circumflex was used when scholars felt it necessary to mark the length of a vowel.

In this function, the circumflex has recently been partially supplanted by the acute accent, while the grave accent has been increasingly used since the beginning of the $20^{\text {th }}$ century to indicate vowels perceived to be short in English loanwords ${ }^{19}$ e.g. rỳg 'rug', tỳg 'tug', ròd 'rod', òd 'odd ${ }^{20} .{ }^{21}$ Nevertheless, it also seems to be used to distinguish homographs introduced through borrowing from English, e.g. talaf 'I pay' - talafltàlaf 'tallest' (< English 'tall').

However, the circumflex may nowadays also serve this function, e.g. tâl 'pay' - tal 'tall'. Here, speech analysis will show whether there is really a length distinction between the two, as 'tall' can certainly be pronounced with a long vowel in English. Another function of the circumflex is simply to indicate the placement of the stress, e.g. gwrêng 'common people', aflêr 'untidy'.
${ }^{17}$ Ibid., 143.
${ }^{18}$ The first compiler of a Welsh dictionary, William Salesbury (1520-1584), only discussed English pronunciation in his dictionary from 1547 (cf. Heinz, Welsh Dictionaries in the $20^{\text {th }}$ Century, 133ff.), although he later produced $A$ Briefe and a Playne Introduction, Teachyng how to Pronounce the Letters in the British Toung, (now Commenly Called Walsh) in 1550. Henry Salesbury (1561-1637?) aimed for instance at tackling the graphematic problem of $<1 \mathrm{ll}>$ at word boundaries in Welsh (ibid., 148f.). Perhaps the first to have attempted a more systematic presentation of the phoneme-grapheme relations in Welsh was the grammarian Gruffydd Robert ( 1520 - ca 1610), who suggested the use of $<\mathrm{u}>$ for $/ \mathrm{w} /$, $<\mathrm{l}>$ for $/ \mathrm{t} /$ and $<\mathrm{d}>$ for $/ \mathrm{d} /$ (cf. Heinz, Welsh Dictionaries in the $20^{\text {th }}$ Century, 118f.). His system was taken up by John Jones (1585-1657/58), whose dictionary, however, was never published. Another grammarian who worked on Welsh pronunciation was Siôn Dafydd Rhys (1534-ca 1609). Nevertheless, although both grammarians were deeply embedded in Italian linguistics, they eventually focused more on literature in their grammars; Robert on prose and Rhys, traditionally, on poetry (cf. Heinz, Welsh Dictionaries in the $20^{\text {th }}$ Century, 119).
${ }^{19}$ Cf. Lewis, Orgraff yr Iaith Gymraeg, part II.
${ }^{20} G y A$, xxv.
${ }^{21}$ The grave accent is, of course, used widely in French and it, therefore, comes as no surprise that the producer of $G y A$, a scholar of French, makes intensive use of it. However, further research into when which diacritic was used first and how their use has changed over time is urgently needed.

As will be argued throughout the course of the project described below, the use of diacritics in the way criticised here is a rather ad-hoc solution to the problem of existing grapheme-phoneme divergence in Welsh. ${ }^{22}$ This divergence (a) necessarily developed in the first place due to the adoption of the writing system of a language with a different phonology, i.e. Latin, and was (b) aggravated by extensive borrowings from, again, another language with a very different phonological system, i.e. English.

## 2. Project description

In order to address the lacunae in the description of Welsh phonology, a research project has been set up between the University of Szczecin / Poland, the University of Leipzig / Germany and the Max Planck Institute for Evolutionary Anthropology (MPI-EVA) / Germany, aiming to investigate vowel length in Welsh based on appropriate contemporary data and the latest research methods, including extensive speech recordings. ${ }^{23}$ While the project is still in its early stages, it already seems clear that (a) the Welsh phonological system is less complicated than descriptions in secondary sources might suggest, (b) it can still largely resist English influence, (c) the use of diacritics should be reduced if this is to remain the case and (d) Welsh monosyllables tend to have long vowels, except in certain, quite well-defined cases. Some of these latter are instances whereby complementary patterns are to be observed, e.g. long vowels are to be found before $/-\mathrm{b}-\mathrm{d}-\mathrm{g} /$, and short vowels before $/-\mathrm{p}-\mathrm{t}-\mathrm{k} /{ }^{24}{ }^{25}$ The same relationship largely holds true between $/ 1 /$ on the one hand, and $/ 4 /$ on the other. This suggests that a phonological principle of VCcomplementation might be at work. ${ }^{26}$

[^1]The following sections outline the methodology followed in the project investigating vowel length in Welsh monosyllables and point out some preliminary hypotheses on the basis of the work which has been done so far.

## 3. Data collection

A research project of this nature, which aims at analysing vowel length from speech recordings, requires the development of a suitable corpus. In this instance, we assembled data from various printed and online dictionaries (cf. bibliography), including the historical one GPC, Vocabulary of Bangor District, ${ }^{27}$ and the reverse dictionary, ${ }^{28}$ aiming to collect as many monosyllables as possible that are in current use. The lexical items collected were discussed with native speakers and colleagues from both the South and the North of Wales ${ }^{29}$ in order to establish a corpus of lexical items which are in common use in today's Welsh and understood all over Wales.

For reasons explained below, we put a particular focus on native vocabulary; ${ }^{30}$ though on examination of the resulting corpus it is clear that the number of native monosyllabic words is not particularly large. However, this is to be expected, given that Welsh shows productive word formation by derivation and compounding. As a consequence, the Welsh vocabulary exhibits a preponderance of multisyllabic lexical items. In addition, as far as possible, the etymology of each lexical item was added.

Any non-restricted database of modern Welsh monosyllables would contain a relatively high percentage of English monosyllabic loanwords, given that lexical borrowing has been extensive and English has a large number of monosyllabic nouns in common use. However, since these loanwords exhibit different patterns of consonant distribution from those found in native vocabulary, they cannot form the basis of any investigation of Welsh phonological properties. Indeed, final plosives in particular are

[^2]found far more often in English loanwords than in native vocabulary. Accordingly, all words in the corpus ending in /-p, -t, -c/ are recent English borrowings and those ending in /-b, -d, -g/ are predominantly of English origin. Monosyllables with final $/ \mathrm{t} \int /$ and $/ \mathrm{d}_{3} /$ are exclusively English loanwords again, while those ending in $/-\mathrm{f} /$ and $/-\theta /$ similarly tend to be English borrowings. In contrast, monosyllables with final /-s, -v, -m, -n, -l, -r/ are generally native words (or occasionally very old Latin borrowings). The lexical items ending in /-1, -x, -ð/ are all native, which is unsurprising given the absence of $/ 4 /$ and $/ \mathrm{x} /$ from the English consonant inventory. The origin of the few words ending in $/-\eta /$ is mixed.

In addition, looking at lexicographical works from different periods, it becomes clear that English monosyllables in Welsh do not form a particularly stable lexicon. Indeed, evidence from GPC suggests that these words tend to become cymricised over time, e.g. côp $>$ cob 'cope', $c \hat{w} c$ 'cook' > cog, cwg, crwp 'croup' > crwb, ap 'ape' > âb, or fall out of use. Seeing as they do not constitute an established part of the Welsh sound system as it has developed historically, the English lexical items could, therefore, not form the primary focus of our enquiries. Consequently, English borrowings were omitted in the determination of the terms used in the speech recordings, ${ }^{31}$ except for a number of control cases, which were included.

Furthermore, forms which occur exclusively in writing, such as the morphological forms specific to the rarely-used first person plural present subjunctive, e.g. bôm 'I would be', rhôm 'I would give', trôm 'I would turn' etc. were excluded from the corpus used for speech recordings. The same holds for the first singular past indicative form of $\operatorname{bod}$ 'to be', i.e. bûm, which was omitted for the same reason.

As said above, the actual data used for speech recordings predominantly draws from native vocabulary in the corpus and will be subjected to rigorous acoustic analysis. In order to prepare the data for use in the speech recordings, words were ordered, firstly, according to their orthographic vowel and final consonant and, secondly, according to the vowel quantity ascribed to them in primary and secondary sources. In this way, all potentially contrastive environments of vowel length in Modern Welsh were isolated. The results of this analysis should be available soon and while we do not wish to anticipate its conclusions here, the elaboration

[^3]of the corpus itself yielded some interesting preliminary hypotheses, discussed further below.

## 4. Preliminary hypotheses

As mentioned above, the number of Welsh monosyllables deriving from the native vocabulary is limited. However, it can be stated that there is a clear tendency for native Welsh monosyllables to have phonetically long vowels, unless they end in a nasal or show complementary patterns. In other words, there does not seem to be a system-wide distinction between long and short vowels, ${ }^{32}$ and the potential environments for contrast only exist before a very reduced number of consonants. Phonetic vowel length in native vocabulary appears to be predictable from context, except before $/-\mathrm{r}$, $-\mathrm{n} /$, occasionally $/-1 /$, rarely $/-1 /$, and $/-\mathrm{s} / .{ }^{33}$ However, apart from the latter, even in these instances, vowel length can often be predicted on the basis of other factors. In the case of the sonorants, vowel length can often be established on the basis of the orthography of morphological derivation, on historical developments or by merit of being synsemantica. ${ }^{34}$

As regards grammatical derivation, e.g. gwên 'smile' - gwen 'white', the plural of $g w e ̂ n$, i.e. gwenau, clearly indicates that the monosyllabic base form has a long vowel, just as the grammatical inflection gwenned 'so white', with an orthographic geminate, indicates a short vowel in the monosyllabic base. This suggests that a singleton-geminate contrast in sonorants might exist in Welsh synchronic phonology. ${ }^{35}$

Possible support for this analysis is the fact that many of those Welsh words ending in a long vowel plus sonorant /-n, -r/ often have Irish cognates with a simple or 'lenis' sonorant, e.g. Welsh glân, Old Irish glan 'clean'. On the other hand, forms ending in a short vowel and /-n, -r/

[^4]regularly have Irish cognates ending in 'fortis' or geminate sonorants, e.g. Welsh pen, Old Irish cenn 'head'.

In other rare cases where there appears to be a vowel-length contrast before sonorants, the distinction between autosemantica and synsemantica, i.e. the semantic level, is a good guideline. Synsemantica always have short vowels (cf. Lewis 1987: 15) and there are potential minimal pairs with autosemantica, e.g. tân 'fire' - tan 'until', hŷn 'older' - hyn 'this'; môr 'sea' - mor 'so', âr 'plough' - ar 'at'. However, when borrowings from English come into play, this distinction is less useful, as the loanwords found are predominantly autosemantica. Vowel-length contrasts have been described both between two loanwords and between a borrowing and a native lexical item, e.g. tâp 'tape' - tap 'tap', ffôn 'phone' - ffon 'stick', ôd 'snow' - od 'odd'. This matter is discussed further below.

It appears that vowels preceding final $/-1 /$ and $/-1 /$ are largely in complementary distribution, with short vowels before $/-\mathrm{f} /$ and long ones before $/-1 /$. A similar situation regarding Irish cognates as that which holds before /-n, -r/ seems to be in operation here, e.g. in Welsh mêl, Old Irish mil 'honey'. Although an example of an Irish cognate ending in <ll> is lacking from our corpus, there are cases of short vowels before historic consonant clusters in Welsh, which have been preserved in Irish, e.g. Welsh col 'awn', Old Irish colg. As the vowel in Welsh words such as col is short, loss of $/-\mathrm{g} /$ in final clusters $/-\mathrm{lg} /$ is one possible source for the development of a potential vowel-length contrast in the language.

That said, there do appear to be a few dialectal forms in which a length contrast is to be observed before /4/, e.g. pell 'far' and gwell 'better', which are said to be short in the North and long in the South. Otherwise, gwall 'error' is a rare example of native words currently used which regularly have a long vowel where a short one is to be expected. It is to be hoped that the acoustic analysis will shed more light on such apparent exceptions. ${ }^{36}$

For words ending in /-s/, both long and short vowels seem to occur, the presence of one or the other still not being well understood, either through diachronic developments or synchronic context. ${ }^{37}$ However, in accordance with the general trend in Welsh monosyllables, long vowels do seem to be more common here, as they tend to be before all fricatives, with the rare dialectal exception in/ $-\theta /$ or $/ 4 /{ }^{38}$ A large number of English borrowings

[^5]with final $/-s /$ tend to have short vowels, the pronunciation of which is buttressed by use of the grave accent, e.g. còs, pàs, ffrès, gès, clòs. ${ }^{39}$

As seen before, vowel length before voiceless fricatives, especially / $\theta /$ and $/ \mathrm{t} /$, is not quite as predictable as that before voiced ones, where the preceding vowel is always long. There are occasional cases where vowel length may be contrastive or correlate with a consonantal distinction, e.g. bedd 'grave' - beth 'what', ${ }^{40}$ bydd 'he/she is' - byth '(n)ever'. ${ }^{41}$ It is to be hoped that the research project outlined here will contribute to the clarification of such issues.

Further minimal or potential minimal pairs between long and short vowels only occur in the case of English borrowings which have not yet been fully adapted to Welsh phonology, e.g. sêt 'seat' - set. ${ }^{42}$ However, here the Welsh word sedd seems to be more popular.

A further question to be addressed in our research is that of the exact nature of the phonetic contrast, which we have been referring to thus far as one of length. It is possible that vowel quality rather than quantity is the more salient difference between 'long' and 'short' vowels, or that both vowel quality and vowel quantity vary together, as they do in English. Indeed, it may be the case that this question is also a dialectal one, and that quality distinctions might be more relevant in the South, where there have been reports of three degrees of phonetic length ${ }^{43}$. ${ }^{44}$ Words such as grêt

[^6]'great' seem to have a short open vowel, at least in the North, rather than a long one as would be suggested by the circumflex.

As regards the orthography, given the predictability of vowel length on consonant environment, the many diacritics in use are necessary only in cases of potential contrast. As it stands, the widespread use of diacritics in Welsh monosyllables is likely to impede the easy adaption of English borrowings to the Welsh phonological system. For this reason, we recommend the omission of diacritics in all but the most necessary instances, e.g. before $<\mathrm{s}>. .^{45}$ The use of diacritics in English loanwords in Welsh, e.g. sêt 'seat' and set 'set' or tâp 'tape' and tap 'tap' should not be maintained, allowing borrowings to more easily adjust to Welsh phonology. This type of adaption has happened often in the past, as evidenced by the historical dictionary GPC, e.g. $c \hat{w} c$ 'cook' $>c o g, c w g, a p$ 'ape' > $\hat{a} b$ (cf. above). Therefore, English 'tape' could be rendered as $t a b$. In a similar vein and on the model of English 'pool' $>$ Welsh pwll, borrowings such as English 'tall' could be rendered as Welsh tall. ${ }^{46}$

## 5. Summary

We hope to have shown that there is a great need of further investigation into questions of Welsh phonology. In particular, comprehensive empirical data collection and experimental research is seriously lacking. We have outlined a research project which aims to address this lacuna by means of acoustic analysis of speech recordings and have presented some preliminary hypotheses on the basis of this ongoing work.

These hypotheses can be summarised as follows. Firstly, there does not seem to be a system-wide distinction between long and short vowels in Welsh monosyllables. In the case of $/-n /$ and $/-r /$, vowel length can often be predicted on the basis of diachronic information, grammatical derivation, or by reference to semantic class. Before all other consonants, except $/-\mathrm{s} /$, vowel length is more or less entirely predictable and what variety does exist, such as that before $/-1 /$, seems to be dialectal. Vowel

[^7]length before $/-\mathrm{s} /$ is still not well understood and its investigation is a priority of our research.

Secondly, English loanwords in Welsh might be better assimilated to the native phonological system if the use of vowel diacritics were discontinued in most cases. It is clear from the evidence of the historical dictionary that Welsh has adapted English loanwords to its own phonology in the past. In all, we hope that this article can help focus minds on the work which needs to be done in order to improve linguistic descriptions and promote the health of this endangered language.

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## CHAPTER Two

# Diphthongs in the North of WALES 

PAWEŁ TOMASZ CZERNIAK

## 1. Introduction

Welsh and English have long coexisted in the North of Wales. Welsh has been present since the Celtic migration in Antiquity, and while English has been gradually introduced since the Norman Conquest, its heyday was not until the $19^{\text {th }}$ century's Industrial Revolution: the economic situation then forced the Welsh to learn English (or leave for England) in order to find employment. ${ }^{1}$ It can be assumed that Welsh-speakers learning English acquired its pronunciation applying their native language grammar, a process to be expected in second-language acquisition. ${ }^{2}$ By the same token, modern endeavours to revive Welsh consist largely in firstlanguage English speakers being taught Welsh, who then acquire it with their first-language grammar. This is a most interesting situation which should reveal a number of similarities between the structures (phonological and other) of both languages spoken in Wales.

The 2011 census shows that the concentration of first-language Welsh speakers is greatest in the North and in the west rather than along the English border. ${ }^{3}$ English in Wales, on the other hand, is widespread and

[^8]requires no special aid and preservation. One variety of English spoken in parts of South Wales is distinct enough to earn its own name - Wenglish. ${ }^{4}$ This paper compares the structures of Welsh and (North) Wenglish diphthongs in search of phonological similarities.

Section 2 gives a brief description of North Welsh diphthongs. Section 3 collects the data concerning the English diphthongs used in the North of Wales. Section 4 deals with the phonotactics of diphthongs in both languages. Section 5 will be a theoretical response to the regularities found in section 4. Finally, section 6 will suggest implications for further research.

## 2. Diphthongs of North Welsh

One of the earliest accounts of North Welsh phonology comes from a paper by Henry Sweet originally published in 1882. He enumerates thirteen diphthongs and gives both Romic and Latin-based notations. ${ }^{5}$ Evans, ${ }^{6}$ Fynes-Clinton, ${ }^{7}$ and Morris-Jones ${ }^{8}$ identified between thirteen and twenty-four diphthongs in Welsh. However, their accounts are problematic for various reasons: (i) they confuse spelling with pronunciation, (ii) they are highly inconsistent, (iii) they are outdated, (iv) the difference between the northern and the southern inventories is blurred.

More recent accounts are more consistent. Jones ${ }^{9}$ and Thomas ${ }^{10}$ enumerate thirteen North Welsh diphthongs, while Awbery finds fifteen but later eliminates one. ${ }^{11}$ However divergent all these analyses are, they

[^9]all agree that there are three series of diphthongs in NW: [i]-closing, [i]closing and [u]-closing. Recent phonetic studies identify thirteen distinctive diphthongs of North Welsh which might be slightly influenced by the context without, however, a significant bearing upon their perception. ${ }^{12}$ The NW diphthong inventory is adopted from Jones, Thomas, Ball and Williams, and Mayr and Davies: ${ }^{13}$

| [i]-closing | ai | งi | әi |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| [i]-closing | ai | ai | $\bigcirc \stackrel{1}{4}$ | vi | ə่ |
| [u]-closing | iv | عu | av | วu | iv |

## Table 1: North Welsh diphthongs

What is particularly characteristic of Welsh varieties in the North is the presence of [i] which is absent from the inventories of the southern dialects. Thus, NW has five diphthongs more than SW. Below we have a list of monosyllabic words containing the aforementioned diphthongs: ${ }^{14}$

|  | transcription | Welsh spelling | gloss |
| :---: | :---: | :---: | :---: |
| [i]-closing | [łai] | llai | 'less' |
|  | [troi] | troi | 'turn' |
|  | [tıi] | tei | 'tie' |
| [i]-closing | [kai] | cau | 'close' |
|  | [kai] | cae | 'field' |
|  | [kıid] | coed | 'wood' |
|  | [mui] | mwy | 'more' |
|  | [nəi] | пеи | 'or' |

[^10]| [v]-closing | [1iv] | lliw | 'colour' |
| :---: | :---: | :---: | :---: |
|  | [1عv] | llew | 'lion' |
|  | [łav] | llaw | 'hand' |
|  | [bəvid] | bywyd | 'life' |
|  | [iv] | yw | 'is' |

Table 2: Diphthongs in North Welsh monosyllables
NW diphthongs occur mostly in monosyllabic words but their distribution comprises the unstressed syllable, penultimate and, less frequently, the ultimate syllable of a longer word. ${ }^{15}$

## 3. Diphthongs of North Wenglish

Although there are many analyses dealing with the phonology of Welsh and even focusing on North Welsh, analyses of Wenglish and its dialects are far less common. Monographs dealing with the subject of English as a global language usually devote not more than a few pages to the varieties spoken in Britain. There are, however, a handful of Welsh English analyses from which relevant data concerning NWE can be extracted: ${ }^{16}$

|  | RP | NWE | diphthong |
| :---: | :---: | :---: | :---: |
| mouth | [mave] | [məvӨ] | [ $\partial \mathrm{U}$ ] |
| price | [prass] | [prors] | [əI] |
| choice | [tfois] | [tfois] | [OI] |
| beer | [bır] | [biijə] |  |
| cure | [kjuə] | [kıUwə] |  |
| square | [skweə] | [skwe:] |  |
| goat | [gəut] | [goit] |  |
| pane | [pein] | [pe:n] |  |
| Tuesday | [tju:zder] | [tiozde:] | [IU] |

Table 3: North Welsh English diphthong adaptation

[^11]The words mouth, price and choice are pronounced similarly in RP and NWE with the first member of the diphthong slightly altered. In the first and second case it is reduced to a schwa and in the third case it is pronounced with more rounding. Diphthongs in beer and cure seem to be examples of vowel hiatus broken up by a glide being a continuation of the first member. The diphthongs of square, goat and pane are substituted with long vowels.

Hence, there are three strategies of diphthongal 'mistreatment' in NWE: (i) first-member alternation, (ii) glide insertion, (iii) monophthongisation. A word of comment is in order here - pairs like pane pain, daze~days, made~maid, toe $\sim$ tow, nose $\sim k n o w s$, doe $\sim$ dough might constitute minimal pairs having a long vowel in the first member of a pair and a diphthong in the second. However, such oppositions are phonemic only in certain dialects and rarely in the North. ${ }^{17}$

In sum, while North Welsh has an inventory of thirteen diphthongs, North Welsh-English has only four vocalic sequences that could be classified as diphthongs. The remaining sequences are either long vowels or two short vowels belonging to separate syllables straddling a glide.

## 4. Combinatorial restrictions

We have seen that both NW and NWE have only closing diphthongs, the former has three series and the latter has two. The second member of a diphthong in NW can be either [i], [i] or [u]; the first one, however, is one of the following: [i], [i], [ $\varepsilon$ ], [ə], [a], [a], [ 0 ] or [ u ] which gives us 24 possible combinations. Combinations [ii], [ii], [ii], [ii] and [vo] can be eliminated immediately since they would yield one of the long vowels available in the language. Since there are nineteen combinations left and NW has only thirteen diphthongs in its inventory, six combinations should be illegal. Indeed, the back vowel [a] appears only in the long diphthong [aii] which is itself restricted to monosyllables and sometimes subject to monophthongisation to [a:]. ${ }^{18}$ Hence, [ai] and [au] are deleted leaving four illegal combinations to be dealt with: [عi], [ $\mathrm{\varepsilon i}]$, [ou] and [ui]. Consequently, there are eight segments that can serve as the first member of a diphthong in NW but only three that could become the second member. The inventory does not employ all possible combinations allowing only one diphthong to start with [a] and excludes sequences of

[^12]similar sounds. Still, four diphthongs that would otherwise enter the inventory are disallowed.

As far as the English in North Wales is concerned, its diphthongs terminate in two segments - [I] and [u]. Oddly enough, one of only three segments may be the first part of a diphthong - [ I$]$, [ o ] or [ə]. Schwa can freely combine with both terminal members but $[\mathrm{I}]$ and $[\mathrm{o}]$ are constrained.

Unlike in NW or RP, [a] is never found as a first member of NWE diphthongs and is reduced to a schwa in those corresponding to RP. Further, if an RP diphthong ends in a schwa, it is broken up by a glide in NWE. RP diphthongs [er] and [əu] are NWE monophthongs. Finally, RP sequence [ju:] is interpreted as a NWE diphthong [IW]. Correspondences between the diphthongal inventories of NW, NWE and RP are summarised below:

| NW | ai | ai | di | əi | 2i | งi | 91 | Ui | e: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NWE | $x$ | $x$ | $x$ | əi | $x$ | วi | $x$ | $x$ | e: |
| RP | aI | $\times$ | x | $\times$ | $\times$ | OI | $\times$ | $\times$ | eI |


| NW | av | əU | iv | ¢ ${ }^{\text {d }}$ | $\varepsilon \cup$ | $\times$ | O: | $x$ | $x$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NWE | av | $\partial \mathrm{J}$ | iv | $x$ | $\times$ | $\varepsilon:$ | o: | $x$ | $\times$ |
| RP | av | วU | $\times$ | $\times$ | $x$ | еә | OU | І | Uə |

## Table 4: North Welsh and North-Welsh English and Received Pronunciation diphthongal inventories

A cross ' $x$ ' indicates a lack of a corresponding structure in one of the languages. We can see that the chart above is not an implicational hierarchy: i.e. the presence of a structure in one language does not imply the same or its reverse in another. Nevertheless, it can be observed that NWE share more with NW than with RP.

## 5. Diphthongs in Government Phonology

Two vocalic elements may be classified as a diphthong if they form a glide within one syllable: i.e. most energy is concentrated in the first element, the second being an off-glide, while the whole diphthong is equivalent to a long vowel in quantity. ${ }^{19}$ Government Phonology represents diphthongs as two vocalic segments contracting a governing

[^13]
[^0]:    ${ }^{1}$ Martin J. Ball and Glyn E. Jones, Welsh Phonology Selected Readings (Caerdydd: Gwasg Prifysgol Cymru, 1984).
    ${ }^{2}$ S. J. Hannahs, The Phonology of Welsh (Oxford: Oxford University Press, 2013).
    ${ }^{3}$ Gwenllian M. Awbery, Pembrokeshire Welsh: Phonological Study (Caerdydd: National Museum of Wales, Welsh Folk Museum, 1986).
    ${ }^{4}$ Peter W. Thomas, and Beth Thomas, Cymraeg, Cymrâg, Cymrêg: Cyflwyno'r Tafodieithoedd (Caergybi: Gwasg Taf Cyf, 1989).
    ${ }^{5}$ Cf. Sabine Heinz, Welsh Dictionaries in the $20^{\text {th }}$ Century - a Critical Analysis (LINCOM Europa, München, 2003).
    ${ }^{6}$ Katarzyna Bednarska, "Quantity Issues in Welsh," in Formal and Historical Approaches to Celtic Languages, ed. Krzysztof Jaskuła (Lublin: Wydawnictwo KUL, 2011).
    ${ }^{7}$ Robert Mayr, and Hannah Davies, "A Cross-Dialectal Acoustic Study of the Monophthongs and Diphthongs of Welsh," in Journal of the International Phonetic Association 41.1 (2011).
    ${ }^{8}$ There are exceptions to this last statement, e.g. some of the articles in Ball and Jones, Welsh Phonology as well as Mark J. Jones and Francis Nolan, "An Acoustic

[^1]:    ${ }^{22}$ This is a fact often neglected by Welsh linguists, who consequently argue that there is no need for phonetic transcription for Welsh in dictionaries (cf. Heinz, Welsh Dictionaries in the 20 th Century, 435-450).
    ${ }^{23}$ We would like to thank our colleagues Dr. Sven Grawunder and Professor Martin Haspelmath of the MPI-EVA Leipzig for their methodological and technical support and further cooperation in this regard.
    ${ }_{25}^{24}$ Cf. Lewis, Orgraff yr Iaith Gymraeg.
    ${ }^{25}$ Given the absence of monosyllables ending in /-p -t $-\mathrm{k} /$ from the native Welsh vocabulary (see below), it is hard to draw firm conclusions from these complementary patterns. It is well known that English vowels are considerably longer before $/-\mathrm{b}-\mathrm{d}-\mathrm{g}$ / than before $/-\mathrm{p}-\mathrm{t}-\mathrm{k} /$ and this could have been adapted into the Welsh system (cf. also explanations below).
    ${ }^{26}$ Cf. R. Bannert, "Mutual Complementation of VC-Sequences in Central Bavarian", in Phonetics Laboratory 9, (1973).

[^2]:    ${ }^{27}$ Osbert H. Fynes-Clinton. The Welsh Vocabulary of the Bangor District (Oxford, 1913).
    ${ }^{28}$ Stefan Zimmer, Geiriadur Gwrthdroadol Cymraeg Diweddar (Hamburg: Buske, 1987).
    ${ }^{29}$ Our thanks go to Siôn Rhys Williams / Dunstable (England), Handel Jones / Rhandir-mwyn (Wales), Geraint Lewis / Gweiadur (Wales), and Gwenllian Awbery / Caerdydd (Wales), Dr. Delyth Prys / Canolfan Bedwyr (University of Bangor/Wales), Rhoslyn Prys / Bangor (Wales), Dewi Llwyd / BBC Radio Cymru (Wales), Marian Ifans / BBC Radio Cymru (Wales).
    ${ }^{30}$ Cf. GPC and Lewis, Orgraff yr Iaith Gymraeg.

[^3]:    ${ }^{31}$ It is possible that future enquiries into this question will have to take English borrowings into account. However, there are many cases in the phonological literature where concentrating on native vocabulary has yielded important insights into phonological patterning (e.g. Rolf Theil, "Kafa phonology" Journal of African Languages and Linguistics 28.2 (2007).

[^4]:    ${ }^{32}$ Cf. also Lewis, Orgraff yr Iaith Gymraeg.
    ${ }^{33} \mathrm{Cf}$. contradictory statement in ibid., 17.
    ${ }^{34}$ It is clear that these factors cannot be assumed to form part of synchronic phonology. However, drawing attention to them may be of use didactically and they may give clues as to the nature of phonological structures in the language.
    ${ }^{35}$ Cf. Bednarska, "Quantity issues in Welsh," 42. Note here the common spelling of words such as gwyn with a double consonant in Middle and Early Modern Welsh, as for instance in the title of Gruffydd Robert's grammar of 1567 itself: Dosparth byrr ar y rhann gyntaf i ramadeg cymraeg [...]. The length of the vowels in the monosyllables can here clearly be inferred from the spelling of the following consonants. It has to be noted, however, that spelling had not even been fully regularised in Renaissance times.

[^5]:    ${ }^{36}$ In the case of Welsh monosyllables with initial /gw-/, the influence of the onset on following vowel length might be considered.
    ${ }^{37}$ Cf. contradictory statement in Lewis, Orgraff yr Iaith Gymraeg, 17.
    ${ }^{38}$ The status of /1/ is somewhat ambiguous; though it is phonetically a fricative, it complements the sonorant /l/ in terms of the distribution of preceding vowels, with

[^6]:    short vowels preceding /// and long ones before /1/. This pattern, which may be based on a phonological distinction between singleton and geminate segments seems to be active in the North (cf. Lewis, Orgraff yr Iaith Gymraeg, 17). Matters are less clear for the South, where /t/ appears to pattern with the fricatives, and can preceded consequently be preceded by a long vowel. For subsequent diverging statements on the nature of $/ \mathrm{t} /$, see also footnote 10 .
    ${ }^{39}$ GyA, xxv.
    ${ }^{40}$ Here the vowel length regularly varies according to dialectal, lexical, grammatical or stylistic use, e.g. short in unmarked beth as a contracted interrogative (< pa beth) 'what'; long in peth 'thing' (reported as short in fast speech Fynes-Clinton, Vocabulary of Bangor District, 426) etc.
    ${ }^{41}$ Can be long in the North when emphasised (Fynes-Clinton, Vocabulary of Bangor District, 426).
    ${ }^{42}$ Cf. the comment on the instability of English loanwords above.
    ${ }^{43}$ Cf. Sabine Heinz, Geirfa Gymraeg-Almaeneg gydag Adysgrifiad [WelshGerman Vocabulary with Complete Phonetic Transcription], in Eia Popeia (a translation of the novel Si Hei Lwli) by Angharad Tomos, 135-242. (Lewiston / New York: The Edwin Mellen Press, 1994), Heinz, Welsh Dictionaries in the $20^{\text {th }}$ Century, 435-450.
    ${ }^{44}$ Lewis, Orgraff yr Iaith Gymraeg, 22 sees three degrees only in nonmonosyllables, denoting the medium length as (a) lled hir 'half long' and (b) canolog 'middle' synonymously. Interestingly, discussion of three degrees of

[^7]:    vowel length also appears in the Irish grammatical tradition (cf. David Greene, "Middle Quantity in Irish," Ériu 16 (1952).
    ${ }^{45}$ The diaeresis, however, does not come under criticism here as it is indeed useful to indicate cases of vowel hiatus, e.g. sgïo 'to ski', cwmnäau 'companies', crëyr 'heron'.
    ${ }^{46}$ A permanent body including trained linguists and native speakers concerned with the standardisation of the Welsh language is an urgent desideratum.

[^8]:    ${ }^{1}$ David Crystal, Cambridge Encyclopedia of the English Language (Cambridge: Cambridge UP, 2003), 334-335. Markku Fippula, Juhani Klemola and Heli Paulasto, English and Celtic in Contact (New York: Routledge, 2008), 137-147.
    ${ }^{2}$ Cf. Rod Ellis, Second Language Acquisition (Oxford: Oxford UP, 1997). Susan M. Gass and Larry Selinker, Second Language Acquisition. An Introductory Course (New York: Routledge, 2008). Roy C. Major, "Transfer in Second Language Phonology," in Phonology and Second Language Acquisition, eds. Jette G. Hansen Edwards, and Mary. L. Zampini (Amsterdam, PA: John Benjamins Publishing Company, 2008), 63-94.
    3 "Office for National Statistics," last modified February 9, 2014, http://www.ons.gov.uk/ons/index.html.

[^9]:    ${ }^{4}$ Cf. Robert Michael Lewis, "Wenglish, the Dialect of South Wales Valleys, as a Medium for Narrative and Performance" (PhD diss. Glamorgan: University of Glamorgan, 2010).
    ${ }^{5}$ Henry Sweet, "Spoken North Welsh," in Collected Papers of Henry Sweet, ed. Henry Cecil Wylad (Oxford: Clarendon Press, 1913), 417.
    ${ }^{6}$ Samuel Evans, The Elements of Welsh Grammar (Newport: John E. Southall, 1910), 3.
    ${ }^{7}$ Osbert Henry Fynes-Clinton, The Vocabulary of the Bangor District (London: Oxford UP, 1913), xiv.
    ${ }^{8}$ John Morris-Jones, $A$ Welsh Grammar. Historical and Comparative: Phonology and Accidence (Oxford: Clarendon Press, 1913), 31.
    ${ }^{9}$ Glyn E. Jones, "The Distinctive Vowels and Consonants of Welsh," in Welsh Phonology Selected Readings, ed. Martin J. Ball and Glyn E. Miller, (Cardiff: University of Wales Press, 1984), 60-61.
    ${ }^{10}$ Alan R. Thomas, "The Welsh Language," in The Celtic Languages, ed. Donald MacAulay (Cambridge: Cambridge UP, 1992), 328.
    ${ }^{11}$ Gwenllian M. Awbery, "Phonotactic Constraints in Welsh," in Welsh Phonology Selected Readings, ed. Martin J. Ball and Glyn E. Miller (Cardiff: University of

[^10]:    Wales Press, 1984), 92. Gwenllian M. Awbery, "Welsh," in The Celtic Languages, ed. Martin J. Ball and Nicole Müller, (London: Routledge, 2010), 364.
    ${ }^{12}$ Martin J. Ball and Briony Williams, Welsh Phonetics (New York: The Edwin Mellen Press, 2001), 147-160. Robert Alexander Mayr and Hannah Davies, "A Cross-Dialectal Accoustic Study of the Monophthongs and Diphthongs of Welsh," Journal of the International Phonetic Association 41(2011): 1-25.
    ${ }^{13}$ Jones, "Distinctive Vowels and Consonants," Thomas, "The Welsh Language," Ball and Williams, "Welsh Phonetics" and Mayr and Davies, "Monophthongs and Diphthongs".
    ${ }^{14}$ Ball and Williams, Welsh Phonetics, 44-45.

[^11]:    ${ }^{15}$ Jones, "Distinctive Vowels and Consonants," 57-58.
    ${ }^{16}$ John Cristopher Wells, Accents of English: The British Isles (Cambridge: Cambridge UP, 1982. John Cristopher Wells, "Accents of English in Wales: A Postscript," in English in Wales: Diversity, Conflict and Change, ed. Nicolas Coupland and Alan Richard Thomas, (Clavendon: Multilingual Matters Limited, 1990), 162-164. Robert Penhallurick, "English in Wales," in Languages in the British Isles, ed. David Britain (Cambridge: Cambridge UP, 2007), 152-170. Peter Trudgill and Jean Hannah. International English (London: Routledge, 2008).

[^12]:    ${ }^{17}$ Wells, Accents of English, 384. Penhallurick "English in Wales," 157.
    ${ }^{18}$ Jones, "Distinctive Vowels and Consonants," 61.

[^13]:    ${ }^{19}$ Alfred C. Gimson, An Introduction to the Pronunciation of English, (London: Arnold, 1962), 128.

