Lexical diffusion in Middle Welsh: The distribution of /j/ in the law texts[*]

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Abstract

This article looks at variation in the distribution of /j/ in post-tonic syllables in Middle Welsh. It extends previous studies by looking at variation at the level of the individual lexical item, using data from a stylistically and lexically relatively homogeneous group of law manuscripts from both north and south Wales. Many items show no variation, appearing either with /j/ or without /j/ in all texts. Variable items show different patterns of distribution: for some items, /j/-full forms are restricted to northern texts, and even there compete with /j/-less forms; for other items, the /j/-full forms dominant in the northern texts are found alongside /j/-less forms even in the south. With frequent items, it seems clear that the overall patterns closely resemble those found with cases of lexical diffusion of linguistic innovations. In addition to documenting the patterns of variation, this article makes some proposals as to how they may have arisen. It is suggested that, in the items investigated closely here (plural suffixes and synchronically monomorphemic items), two processes play the major role: a sound change deleting /j/ in the onset of post-tonic syllables, which diffuses south-to-north; and analogical extension of /j/ into the *-eu* and *-oed* plural suffixes, restricted to northern varieties.

1   INTRODUCTION

Recent work on variation and dialect in Middle Welsh (P. W. Thomas 1992, 1993; Rodway 1998) has demonstrated the existence of systematic linguistic variation among Middle Welsh texts and manuscripts. Although this variation has generally been investigated at the level of whole classes of items, it has been realized that much variation exists also at the level of the individual lexical item. Russell (1990), for instance, has noted that variation between *-awc* and *-yawc* as a derivational adjectival (and nominal) suffix shows a great deal of lexical conditioning, in addition to a general geographical split between the northern form *-yawc* and southern *-awc*. A similar situation seems to hold generally with respect to the variation between /j/ and zero in post-tonic syllables (P. W. Thomas 1993: 27).

This article investigates variation in the presence or absence of /j/ at the lexical level in six Middle Welsh texts. It is shown that substantial differences exist between different items, and that geographical variation interacts with differences between items. Many items shows no variation at all, occurring categorically with or without /j/ in both north and south. Even among variable items, there are structured patterns of variation, such that /j/ occurs more frequently and over a wider geographical area with some items than with others. The patterns found are similar to those typically found with lexical diffusion of sound change. The article also investigates what innovations may have given rise to these patterns of structured variation, arguing that they result partly from south-to-north lexical diffusion of a sound change deleting /j/ in the onset of post-tonic syllables, and partly from analogical extension of /j/-full suffixes in northern dialects.

The article begins by setting out the manuscripts chosen for investigation (section 2), before looking at the distribution of the variants in section 3. Section 3 begins by looking at

the distribution of variants in high-frequency items, for which differences between items at a statistical level can be established easily. Examination of high-frequency items reveals an overall pattern of structured variation. Subsequent sections focus on particular subgroups of data: the distribution of /j/ in the plural endings -(*y*)*on*, -(*y*)*oed* and -(*y*)*eu*; and in synchronically monomorphemic items. The patterns found here confirm Russell's (1990) view that variation arises in different ways in different contexts.

2   THE SOURCE TEXTS

In order to investigate variation at the level of individual lexical items, it is necessary that the items under investigation should be frequent in all the texts under consideration. The best conditions for this are when the texts examined are as homogeneous as possible in terms of content and style. For this reason, a group of six law manuscripts was chosen for the investigation. All are texts of substantial length (some 40–50,000 words each), and the lexical content is fairly uniform across the texts, so that, in general, if a lexical item is frequent in one text, it will also be frequent in all or most of the others. The six sources consist of three northern manuscripts (Cotton Titus D.ii, Peniarth 30 and Peniarth 29) and three southern manuscripts (Jesus 57, Llanstephan 116 and Peniarth 36A). The southern texts are generally later in date than the northern texts, due to the nature of the manuscript tradition, and, for this reason, it is possible that some of the variation between them is due to change over time rather than dialect. However, the main aim of the choice was to be able to investigate dialect variation over a fairly homogenous group of texts. This section briefly lays out the evidence for the origin and dating of the texts. For further general details on the Welsh laws, see Owen (1974) and Charles-Edwards (1989).

The first northern manuscript to be considered is British Library Cotton Titus D.ii. It is a central member of the northern Iorwerth redaction of the laws. Aled Wiliam, in his edition *Llyfr Iorwerth* suggests of this manuscript ('B') that 'the original Book of Iorwerth is represented more faithfully in B than in any other manuscript', and uses it as the basis for his edition. Huws (2000: 58) dates it to the second half of the thirteenth century. The Iorwerth redaction has close links with north Wales, and we can be more or less certain that the manuscript was produced in Gwynedd.

Peniarth 30 is the main manuscript used for Dafydd Jenkins's edition of *Llyfr Colan*, forming part of the northern Iorwerth redaction. Huws (2000: 58) dates it to the middle of the thirteenth century, and suggests that it may be in the same hand as Peniarth 29 (see also Jenkins's comments (xix) in his edition of *Llyfr Colan*). Jenkins also noted some orthographic similarities (but also significant differences) between it and Peniarth 29.

Peniarth 29 (the Black Book of Chirk) is a mid-thirteenth century manuscript of the Iorwerth redaction. It is well-known for the idiosyncrasy of its orthography. Russell (1995) interprets this orthography as indicating that it was copied from a source written using conservative Old Welsh orthographic conventions. He demonstrates that earlier suggestions that it was written by a non-native speaker of Welsh or by a scribed trained only in Norman French orthographic traditions were misguided. It almost certainly has associations with Gwynedd, perhaps having been produced in Arfon (Russell 1995: 171).

Jesus 57, which Huws (2000: 60) dates as fourteenth to fifteenth century, is in the hand of Hywel Fychan ap Hywel Goch of Builth (G. Charles-Edwards 1980: 250). Hywel is known to have copied a number of extant medieval Welsh manuscripts, including the Red Book of Hergest (Jesus 111). He has been characterised as a 'low-noise, form-orientated scribe' (P. W. Thomas 1993: 43), that is, he produced copies with marked dialect differences, suggesting that he copied faithfully the dialect variants of his original. In any case, we can be sure that the manuscript was produced in the south-east of Wales, either in Glamorgan or

Brycheiniog. It belongs to the southern Blegywryd redaction, with some additional material from the Iorwerth redaction.

Llanstephan 116 was argued by Gwenogvryn Evans (1898–1910: ii.567), on the basis of references to Gwenog and other names on pages 111 and 120 of the manuscript, to have been written in Llanwenog (Ceredigion) or by a native of Llanwenog. This seems fairly clear, and Lewis concurs with this view in his edition (vii). Charles-Edwards, Owen & Walters (1986: 137) have further noted that the hand is the same as that of British Library Add. 22356, another manuscript of the Blegywryd redaction, and that this is also from the Teifi valley. Huws (2000: 61) dates it to the mid-fifteenth century. It belongs to the Blegywryd redaction, with some additional material from the Iorwerth redaction.

Peniarth 36A, which forms the base manuscript for Williams and Powell's edition *Llyfr Blegywryd*, is in the hand of Gwilym Was Da, which suggests a date at the very end of the thirteenth century or early in the fourteenth (Huws 2000: 59). Gwilym is known to have been active in the borough of Dinefwr in 1302–3 (Owen & Jenkins 1980: 429), and is also the scribe of two other law manuscripts (Trinity O.7.1 and Peniarth 36B). Gwilym's native dialect was evidently a central southern one, although we have little evidence as yet on the extent to which his native dialect overrode the forms that he found in his exemplars.

Although evidence about the geographical provenance of these manuscripts is relatively good, we can be less certain about the extent to which the form of their language is due to the dialect affiliation of their scribes, rather than to the form of their exemplars. Choosing law manuscripts limits these difficulties to some extent, in that the Iorwerth and Blegywryd redactions have firm geographical affinities to north and south Wales respectively, and scribes were therefore likely to have been copying a manuscript from the same area written in a dialect similar to their own. Thus, although we cannot completely exclude the possibility that a northern feature in one of the southern texts, or vice versa, is a result of the influence of the exemplar, we can be relatively confident in taking the first three manuscripts, in broad terms, to represent northern usage, and the last three, in broad terms, to represent southern.

Of the six manuscripts, three were used by Peter Wynn Thomas in his study of Middle Welsh dialects (P. W. Thomas 1993). Thomas considered three variables, the presence or absence of /j/ in various morphological endings, the variation between /θ/ and /t/ in the inflected third-person forms of the prepositions *gan* and *rwng* (for instance, *ganthaw* vs. *gantaw* 'with him'), and the variation between -*awd* and an ending containing a vowel plus -*s* in the third person singular of the past tense. His data for the three texts he considered are shown in Table 1.

	% /j/	% /θ/	% -awd
Cotton Titus D.ii	100	100	1/3
Peniarth 30	88	100	5
Peniarth 36A	1	0	60

Table 1. Distribution of three morphological variants in three of the law manuscripts.

This evidence led to a characterisation of Peniarth 30 and Cotton Titus D.ii as early northern texts, where 'early' means approximately before 1300. They manifest high incidence of the typically northern /j/-full forms and inflected prepositions with /θ/, and low incidence of -*awd*, an innovation which, although characteristic of the north, spreads only at a later date. Peniarth 36A is characterized, on the basis of the data in Table 1, as a later southwestern text, with low incidence of the northern /j/-full forms and inflected prepositions with /θ/. The

medium-level incidence of past tense forms in -*awd* puts Peniarth 36A in an intermediate group of fourteenth-century texts, between southern texts with a low incidence of -*awd*, interpreted as being southeastern, and a high incidence of -*awd*, interpreted as being southwestern. The intermediate incidence of -*awd* in Peniarth 36A could have a number of interpretations: (i) the text is central southern, in a mixed dialect area; (ii) the text was written during the period when -*awd* was diffusing into the southwest from further north; (iii) the text displays mixed forms due to copying. These interpretations are not, of course, mutually exclusive.

The frequency of inflected prepositions with /θ/ seems to be a reliable guide to regional affiliation. For this reason, the frequency of the different stems was established for all six of the texts under consideration. The results are given in Table 2. The first three texts in Table 2 all have very high frequencies of stems in /θ/ for both prepositions, consistent with their northern attribution. Of the northern texts, Peniarth 29 shows the lowest incidence of preposition stems with /θ/. However, the orthography of Peniarth 29 is notoriously erratic, and the scribes represent /θ/ in various ways, including using the character <t>. This means that we cannot really be sure whether spellings such as *cantau* (72.15), *kantahu* (49.3), *kantau* (18.22, 20.20, 65.23, 87.12) and *ykantau* (63.13, 84.9, 95.4) (all except 49.3 (D) in hand A) represent a form with /θ/ or one with /t/.[1] The hands of the manuscript also sometimes spell /t/ with <th>, so the reverse possibility can also not be excluded (see Russell 1995 for details of the orthography of this manuscript).

Jesus 57 patterns mostly with the northern texts for this feature, while Llanstephan 116 and Peniarth 36A show the expected southern pattern, with very low incidence of preposition stems in /θ/. Table 2 reveals one further complication, namely the existence of such forms as *rydaw* with stem /r̩əð/ for *rwng* in all three southern texts, with this being the usual form in Peniarth 36A. In present-day Welsh dialects, forms such as *ryddo* 'between him' are characteristic of the southeast (Thomas & Thomas 1989: 59). The geographical distribution of the form may have been wider in Middle Welsh.

	% ganth-	Number of tokens	% ryngth-	% ryd-	Number of tokens
Cotton Titus D.ii	99%	75	100%	0%	25
Peniarth 30	100%	73	100%	0%	29
Peniarth 29	73%	33	83%	0%	12
Jesus 57	99%	90	86%	14%	29
Llanstephan 116	26%	70	8%	17%	12
Peniarth 36A	0%	34	0%	100%	17

Table 2. Frequency of stem variants in third-person forms of the prepositions *gan* 'with' and *rwng* 'between' in Middle Welsh law texts.

Table 2 broadly confirms that the linguistic attribution of the manuscript is in line with evidence about their geographical provenance. There is more variation in the southern texts than in the northern ones. It is, as yet, unclear whether this should be interpreted as reflecting dialect variation in the south (transitional or intermediate dialects) or whether it is a product of the textual history of the manuscripts.

3 DISTRIBUTION OF /J/

A large number of items in Middle Welsh manifest variation between a form written with some character indicating /j/ (usually written <y>, <e> or <i>) and a form without any such character. This variation is paralleled by similar variation in present-day Welsh dialects. As P. W. Thomas (1993: 25) notes, 'a definable set of morphologically complex items require a stem-formative /j/ in present-day northern dialects of Welsh, but no stem formative in southern ones'. A good example is the form *hoelion* 'nails', plural of *hoelen*, which has forms like /hɔjljɔn/ to the north of a line running east-west just south of the river Dyfi, and forms like /hɔjlɔn/ to the south of this line (A. R. Thomas 2000: 203). The variation in Middle Welsh is generally interpreted as reflecting essentially the same dialect split.

The exact scope of the variability is, in practice, difficult to define. For present-day Welsh, Thomas & Thomas (1989: 35) list the variable suffixes as plural markers -(*i*)*ach*, -(*i*)*au* and -(*i*)*on*; verbnoun markers -(*i*)*an* and -(*i*)*o*; and nominal and adjectival derivational morphemes -(*i*)*ad*, -(*i*)*og* and -(*i*)*wr*. Russell (1990: 39) gives examples of the suffixes that alternate, for Welsh of all periods, including also the derivational suffixes -(*i*)*ol*, -(*i*)*aeth*, plus verbal paradigms of certain verbs variable between forms with and without /j/. The deverbal adjectival suffix -(*i*)*edic* could also be added to the list.

In fact, it is not clear that listing the suffixes that participate in the alternation is the best way to characterize it. Thomas & Thomas (1989) and Russell (1990) treat the variability as essentially morphological: a defined group of suffixes have two forms, one with /j/ and one without, and there is variation between choice of the two variants. Thomas (1993), on the other hand, terms the variability 'graphophonological' in Middle Welsh. This implies two things: (i) the variation may be orthographic — varying degrees of conformity to a literary standard with /j/ — rather than reflecting spoken reality; and (ii) the variation is not a choice between two variant morphological forms of suffixes, but is phonological: /j/ is inserted or deleted in a particular environment, and this environment can (in principle) be defined in phonological terms, perhaps as the onsets of post-tonic syllables where it would be otherwise empty.

The fact that the variation may be purely orthographic is indicated by the presence of hypercorrect use of /j/. Russell (1990: 40) cites *ymhyawl* for *ymhawl* 'claim' in Peniarth 36A (42.25, 43.19, 121.15). Evans (1964: 6) notes a number of other examples where he finds /j/ not to be justified, including *milyoed* 'thousands' (*BD* 67.13), *dwylyaw* 'hands' (*FfBO* 38.9), *ffynhyawn* 'well' (*WM* 231.15) and *aelyodeu* 'limbs' (*YSG* 42). This evidence must be used with some caution. The scribe of Peniarth 36A uses the form *ymhyawl* three times, but, apart from this apparent act of hypercorrection, shows no tendency whatsoever to conform to a literary standard with /j/ (cf. the data below). With the form *milyoed*, the regular one for this noun in *Brut Dingestow*, it is possible that we are dealing with extension of suffixes with /j/ after stems containing high vowels and diphthongs ending in high vowels, which seems characteristic of the language of some northern Middle Welsh manuscripts (cf. *kenueinhyoed* and *muryoed* in *Brut Dingestow*, and *affeithyoed* in Cotton Titus D.ii; see also below). Nevertheless, there do seem to be some cases where orthographic <y> can scarcely reflect the spoken form, and must surely therefore reflect a failed attempt to conform to a perceived norm with /j/. A good example is the spelling of the masculine personal pronoun *eidaw* 'his' in some texts with <i> in the second syllable. This is found in two of the southern texts examined, Llanstephan 116 (2 out of 27, or 7%, of the instances of *eidaw*) and Jesus 57 (1 out of 25, 4%), but, in the northern texts, is found only in the Black Book of Chirk, where it may be part of the general orthographic irregularity of the manuscript. The same occurs in Jesus 57 with the forms *gedymdeithyas* 'company' (3.19), *ynghedymdeithyas* 'in (the) company' (11.33) and *kyweithyas* 'fellowship' (33.13), containing /j/ in items that appear in northern texts only without /j/. In Llanstephan 116, we find (*dydyeu*) *dydyon* (56.1, 69.20, 86.29 and 100.3) and *dydieu dedyon* (113.21) 'days on which legal business may not be conducted',

where northern manuscripts always have *dedon*, *dethon* or *dydon*. This is the sort of pattern we expect in cases of hypercorrection: low level of /j/ in southern texts only. To this extent then, some of the variation that we see must be orthographic rather than phonological.

The variation, both in Middle and in present-day Welsh, encompasses a number of items which synchronically do not contain a suffix, such as *heibio* 'past' and *eidion* 'bullock'.[2] The dialect division for these items seems to be more or less identical to that for *hoelion* (see A. R. Thomas 2000: 347, 648). This is one reason for regarding the variation as phonological rather than morphological.

Most previous research on the distribution of /j/ has focused on analysing the variation at the level of whole text or whole manuscripts. P. W. Thomas (1993), for instance, calculates the frequency of /j/-full forms across a large number of Middle Welsh texts, and shows an overall distribution highly consistent with the present-day pattern, with texts dividing fairly cleanly into those manifesting a broadly northern pattern with /j/, and those manifesting a broadly southern pattern without /j/. Nevertheless, it is clear that there is a large amount of variation between individual items. For instance, Russell (1990: 43) considers the distribution of /j/ in the suffixes -(*i*)*og*, -(*i*)*ol*, -(*i*)*ad* and -(*i*)*on*, suggesting that the most striking aspect is 'that the distribution of derivatives with and without -j- differs greatly between the four suffixes'. He links this to the possibility that absence of /j/ may be historically primary for some items with some of the suffixes but, for other suffixes, the historically primary form always contained /j/.

In order to investigate the microlevel difference in Middle Welsh between different items, three related exercises were carried out. The first involves looking at the patterns of distribution of /j/ found with a group of frequently attested variable lexical items. Looking at frequent items allows statistical patterns to be observed across texts with a fair degree of confidence. The second two exercises focus on the form of two subgroups of items, namely the variable plural suffixes found on nouns and adjectives, -(*y*)*eu*, -(*y*)*on* and -(*y*)*oed*, and on the group of variable items lacking any synchronic suffix at all. The data are based on the published editions of the text mentioned above, with passages from other manuscripts excluded. For the thirteenth-century texts, Isaac and Rodway's (2002) electronic edition of thirteenth-century Welsh manuscripts was used for searching purposes.

3.1 Lexical diffusion patterns in frequent items

Instances of the following fourteen lexical items were extracted for the six texts chosen:

(1)   *beichyawc* 'pregnant'   *effeiryat* 'priest'
       keinyawc 'penny'   *eidyon* 'bullock'
       keissyaw 'try'   *eissyoes* 'nevertheless'
       kreiryeu 'relics'   *gwybydyat* / *gwybydyeit* 'eye-witness(es)'
       kyfreithyawl 'legal'   *meibyon* 'sons'
       kyfreithyeu 'laws'   *tystyolaeth* 'testimony'
       dynyon 'men'   *tystyon* 'witnesses'

These items were chosen for two reasons. First, they all occur with high frequency. At least fifty tokens of each were found in total across the six texts. Secondly, they are all show variability with respect to the presence or absence of /j/. Many items, though in principle containing the right environment for variation between forms with and without /j/, do not, in fact, show any variation within the texts examined (more on this below). Hence we find only forms of *esgidyeu* 'shoes' and *swydogyon* 'officers' with /j/. Included among these are several items where /j/ is not part of a derivational or inflectional suffix. These were included

because they show variability that can be compared to that found with inflectional and derivational endings.

All instances of these lexical items were extracted from the texts, and the relative freqency of forms with some written indication of /j/ (usually as <y>, <i> or <e>) as compared to those with no written indication of /j/ was calculated. Derived forms were included where they contained the same morphological units as the forms listed here, for instance, *beichyogi* < *beich-yawc* + verbnoun suffix *-i*. The inflected forms of *keissyaw* were also included in cases where they contained a suffix.

Table 3 presents the results of this exercise, the columns headed '−' and '+' giving absolute numbers of tokens with and without /j/ respectively, the '+' column also giving percentage of tokens with /j/ for each item. Items are arranged according to their propensity to appear with or without /j/. The item with the greatest propensity to appear without /j/, *kreiryeu* 'relics', appears at the top. Each successive item appears less frequently with /j/, until we reach *dynyon* 'men', which shows the least propensity to drop /j/. The manuscripts are similarly arranged from left to right according to their propensity to show /j/ with these particular items. The manuscript with greatest propensity to represent /j/, Cotton Titus D.ii, is on the left, with each successive manuscript showing a lesser propensity until we reach Peniarth 36A, which represents /j/ least frequently. In all cases, propensity to use /j/ is calculated as the average of the perccentages calculated for each item-manuscript combination, rather than from the total number of tokens. This procedure allows us to compensate for the fact that the items occur with different overall frequencies in different texts. The solid line on Table 3 divides item-manuscript combination with majority /j/ (to the left and below) from those with majority absence of /j/ (to the right and above).

As Table 3 shows, there are striking differences in the extent to which different items manifest /j/. With *kreiryeu* 'relics' and *beichyawc* 'pregnant', the 'southern' form, lacking /j/, is well represented even in northern texts. With other items, such as *meibyon* 'sons' and *effeiryat* 'priest', the reverse is found: the 'northern' form is widely represented even in the south. With other items, a broad north–south split is evident.

The second striking aspect of Table 3 is the extent to which there is agreement between texts about the nature of the variation. That is, there is broad agreement between the texts as to which items are more likely to contain /j/ and which are less likely. This suggests, for instance, that it is possible to predict with some confidence that if the language of a text uses the form *meibon* 'sons' rather than *meibyon*, it will also use *tyston* 'witnesses' rather than *tystyon* and *tystol(y)aeth* 'testimony' rather than *tystyol(y)aeth*.

Structured variation of this type suggests that the patterns found in this particular case represent real dialect variation rather than purely orthographic variation. It is hard to see why scribes aiming towards a literary norm would implement that norm to differential extents with different lexical items.

This type of variation is reminiscent of lexical diffusion, the idea that sound change (and, at times, other linguistic innovations) affect different lexical items at different rates. The idea of lexical diffusion originated in work by Sommerfelt on the sound change from /χw/ to /w/ in mid Wales in words like *chwarae* 'play', *chwanen* 'flea' and *chwaer* 'sister'. Somemerfelt claimed that:

> les changements phonologiques commencent, non pas d'un seul coup dans un groupe de mots donné, mais dans un seul, ou dans un petit nombre de mots, pour atteindre ensuite d'autres mots qui ont les mêmes combinaisons de phonèmes. Et de plus, que les changements se propagent dans une société donnée en tant que formes nouvelles de mots individuels. À un moment donné, *ware* atteint un village gallois et supplante *χware*, sans que, nécessairement, au même moment, *wanen* remplace *χwanen* ou *wa:ir* 'soeur' évince *χwa:ir*, etc.
>
> (Sommerfelt 1945–9: 117)

Citation form	Cott. Titus D.ii −	Cott. Titus D.ii +	Peniarth 30 −	Peniarth 30 +	Peniarth 29 −	Peniarth 29 +	Jesus 57 −	Jesus 57 +	Llan. 116 −	Llan. 116 +	Peniarth 36A −	Peniarth 36A +	Total	Average
	% with /i/		% with /i/		% with /i/		% with /i/		% with /i/		% with /i/			
kreiryeu	0	10	7	8	4	0	13	2	11	6	3	0	64	34%
	100%		53%		0%		13%		35%		0%			
beichyawc	0	9	3	7	2	4	11	0	10	1	4	0	51	41%
	100%		70%		67%		0%		9%		0%			
tystyolaeth	0	12	0	14	2	5	41	0	39	0	30	0	143	45%
	100%		100%		71%		0%		0%		0%			
kvfreithvawl	1	90	0	2	9	26	105	3	108	0	31	0	375	46%
	99%		100%		74%		3%		0%		0%			
kyfreithyeu	0	12	0	4	1	5	13	0	6	0	10	0	51	47%
	100%		100%		83%		0%		0%		0%			
tystyon	0	43	0	30	0	32	79	0	63	0	41	0	288	50%
	100%		100%		100%		0%		0%		0%			
eissyoes	0	21	4	6	1	3	9	7	16	2	6	0	75	52%
	100%		60%		75%		44%		11%		0%			
keissyaw	0	20	1	35	0	8	7	14	11	2	11	0	109	63%
	100%		97%		100%		67%		15%		0%			
eidyon	0	12	0	11	0	10	5	8	8	3	10	0	67	65%
	100%		100%		100%		62%		27%		0%			
keinyawc	0	114	2	31	1	23	4	177	113	3	110	0	578	65%
	100%		94%		96%		98%		3%		0%			
meibyon	0	25	0	18	0	6	0	14	7	0	5	0	75	67%
	100%		100%		100%		100%		0%		0%			
effeiryat	0	30	0	16	3	22	3	42	8	11	31	1	167	74%
	100%		100%		88%		93%		58%		3%			
gwybydyeit	0	49	0	18	1	2	0	40	0	10	0	14	134	94%
	100%		100%		67%		100%		100%		100%			
dynyon	0	19	1	24	1	13	0	33	0	31	0	14	136	98%
	100%		96%		93%		100%		100%		100%			
Average % /j/	100%		92%		80%		49%		26%		15%			

Table 3. Distribution of variants with and without /j/ of high-frequency items in Middle Welsh law texts.

This process, whereby a change affects one lexical item then another, and then another, until it extends across all the items to which it can apply, leads to a characteristic pattern of variation. Diachronically, the pattern is illustrated in Table 4, where t_1, t_2 etc. represent successive points in time at a single location. In Table 4, the forms without /χ/ spread from item to item, until all items are affected. The columns in Table 4 can, however, also be thought of as different geographical locations along on the path of change. In this particular instance, with loss of /χ/ spreading from south to north, t_1 can be thought of as the most northerly (most conservative) location, the location which the sound change has not yet touched. Location t_4 represents the point nearest the source of the change, and is the location that has adopted it most thoroughly. Locations t_2 and t_3 represent intermediate points, where the change has been partially adopted. For further details of lexical diffusion as a theory of the spread of linguistic change, see also Chen & Wang (1975) and Phillips (1984).

	t_1	t_2	t_3	t_4
chwarae 'play'	χware	ware	ware	ware
chwannen 'flea'	χwanen	χwanen	wanen	wanen
chwaer 'sister'	χwa:ir	χwa:ir	χwa:ir	wa:ir

Table 4. Lexical diffusion in mid Wales (based on Chen 1977: 214–16)

In the light of Table 4, the texts in Table 3 can be interpreted as representing different stages of an ongoing sound change or other linguistic innovation. Texts are either more conservative by virtue of their geographical location, or by being located earlier in time, or else more innovative by being produced in a different location or at a different time. This allows us to create a notional north–south axis of variation, with the most characteristically northern text, Cotton Titus D.ii at one end and the most characteristically southern text, Peniarth 36A at the other. This axis of variation is, of course, idealized in the sense that it represents the two dimensions of geographical space plus the dimension of time on a single axis of variation. It may nevertheless be a useful way to characterize the variation and the diffusion of linguistic innovations.

Although the similarity between Table 3 and a standard lexical diffusion pattern such as that illustrated in Table 4 is quite striking, there are some major questions still to be answered, namely: what is/are the innovation(s), and what is the direction of diffusion? Central to answering these questions is the task of establishing, for each variable case, which of the two forms is historically primary.

The answers may be different in different cases. Russell (1990: 43) suggests that differences between different items are due to differences in the historically primary forms. For instance, he suggests that the form of the agent suffix was originally *-yat* in all cases (cf. also Russell 1989), whereas, with *-(y)awl* and *-(y)awc*, the form was determined by the form of the base. That is, whereas, if we find a form in *-at*, it must have arisen through loss of /j/, this is not the case with the other suffixes; not all forms in *-awc* and *-awl* derive historically from *-yawc* and *-yawl* via /j/-deletion. He further suggests that the form of the plural suffix *-yon* may also have originally contained /j/ across the board, and that this is the reason why plurals in *-(y)on* tend to contain /j/ more frequently that other variable items. The evidence is further obscured by the fact that plural noun suffixes were, in a very large number of cases, reassigned analogically either in Brythonic or in early Welsh soon after the loss of final syllables. The relevant 'historically primary' ending in this case is the one that was established at this point in the development of Welsh and the other Brythonic languages, rather than whatever formation was inherited from earlier Brythonic or from Common Celtic.

The main evidence for whether /j/ is historically primary comes from the presence or absence of internal i-affection, the set of vowel alternations /a/ ~ /eɪ/, /o/ ~ /eɪ/ and /e/ ~ /eɪ/,

normally triggered by the presence of /j/ in a following syllable (for details, see Jackson 1953: 579–618 and Schrijver 1995: 257–9). The suggestion is that, by Middle Welsh, i-affection was no longer phonetically conditioned, but had become part of the morphological system. Ignoring the possibility of analogical extension of i-affection, it is reasonable to assume, with Russell (1990: 39–60), that, if an item manifests i-affection, but has no /j/ in its ending, then this indicates that a former /j/ has been lost historically. So, for instance, in the pair *mab* 'son' ~ *meibon* 'sons' in southern Middle Welsh (for northern *meibyon*), the vowel alternation /a/ ~ /eɪ/ must have been triggered at an earlier stage of the language when the plural contained /j/ even in the south. We therefore reconstruct */mapjon/- as the base for the plural in late Brythonic,[3] and posit loss of /j/ in southern dialects, via an intermediate stage /meɪbjon/ *meibyon* in all dialects. I-affection was retained in these forms in southern dialects, despite the loss of /j/, because, by the time of the loss, it had been morphologized. There are other words where *-yon* is clearly historically primary for this reason. Examples include *kleifyon* 'sick people', *deillyon* 'blind people', *gweissyon* 'servants', where i-affection occurs in the plural (compare singular *klaf*, *dall* and *gwas*). On the other hand, we have cases such as *cochyon* 'red', where i-affection fails (no **ceichyon*), and where, therefore, either analogical extension of *-yon* (replacing no ending or a different plural ending) has taken place after i-affection ceased to be phonologically productive, or else the original formulation was *cochon* and /j/ is an insertion. Although the former seems more likely, it is difficult to demonstrate.

The forms with /j/ must also be historically primary in some of the other words investigated in Table 3. This is the case with *effeir(y)at*. Here, the root is /ofer/, derived by a resegmentation of *offeren* 'mass', a loan from Latin *offerenda* 'sacrifice, offering', as /ofer/ + /en/, with i-affection /ofer/ > /efeɪr/ induced by the /j/ of the ending /jad/ (*Geiriadur Prifysgol Cymru* 2633, 2635). We are therefore dealing with loss of /j/ in southern dialects. Similarly, in *dyn*, the singular itself shows final i-affection /o/ > /ɨ/ (cf. Old Irish *duine*). This presumably also took place in the plural, in which case the plural *dynyon* with /j/ is historically primary. For discussion of *eidyon* and *eissyoes*, see section 3.4 below.

3.2 Distribution of /j/ in plural suffixes

Another way of establishing which form is historically primary may be to look at items that do not vary. For instance, if, for a particular suffix, there are items that are used consistently with /j/ in texts across different dialects, and items with variable /j/, but no items that consistently lack /j/ in all texts, then it seems reasonable to suppose that we are dealing with loss of /j/. Examination of the distribution of /j/ found in the plural noun suffixes -(*y*)*on*, -(*y*)*oed* and -(*y*)*eu* reveals interesting patterns relevant to this. The discussion below is based on exhaustive extraction of the relevant items in the six law texts, although items attested only in a minority of the texts have generally been left to one side.

3.2.1 Distibution of /j/ in -(y)on

Variation between plural forms in *-on* and those in *-yon* is widespread in the texts (cf. *meibyon* vs. *meibon* 'sons' above), and we have already seen the suggestion (Russell 1990: 43) that the forms in *-yon* are historically primary. The main phonological evidence in favour of this view is the prevalence of vowel alternations due to i-affection in those plural nouns and adjectives in *-yon* that contain a relevant root vowel. There is also some comparative evidence to support the view too. Where Middle and Modern Breton have an -(*i*)*on*/-(*i*)*en* ending corresponding to Welsh -(*y*)*on*, the form in Breton is overwhelmingly with /j/ (*-ion* or *-ien*), for instance, Middle Breton *mibien* 'sons' (Hemon 1984: 35, Trépos 1956: 62). Parallel Middle Cornish forms are *guesyon*, *guesyen* 'servants', *mebyon*, *mebyen* 'sons' (Lewis 1946: 12).

The only evidence against comes from some secure cases where absence of /j/ is clearly historically justified, for instance, in words like Middle Welsh *Saesson* 'English people' and *lladron* 'thieves'. We know this because (i) all dialects of modern Welsh manifest a form without /j/ in these words; (ii) these words lack /j/ in Breton; (iii) these are loans from Latin (*latrones* and *Saxones*) with no evidence of a glide in the donor language; and (iv) *lladron* and *Saeson* lack i-affection: they are not ****lleidron* and ***Seison*, as would be expected before a suffix containing /j/ (cf. Jackson 1953: 582–3).

In addition to the evidence from i-affection, evidence from the distribution of variants itself may also be useful in establishing which is historically primary. As mentioned above, it is noticeable that, across the six texts examined, many items are not variable. The list in (2) gives those items which can be stated with some confidence only to occur with /j/. These items all have plural in -(*y*)*on* attested in at least two of the southern texts examined, and for all of these items, forms with /j/ are the only ones attested in any of the texts.

(2) *alltudyon* 'exiles' *gwastrodyon* 'grooms'
  anregyon 'dishes, meals' *gwynnyon* 'white'
  kerdoryon 'minstrels' *hebogydyon* 'falconers'
  cleifyon 'sick people' *hoelyon* 'nails'
  clustgochyon 'red-eared' *morynyon* 'maidens'
  cofaduryon 'clerks, recorders' *perchnogyon* 'owners'
  kyffelybyon 'corresponding people, peers' *polyon* 'poles'
  kyghelloryon 'chancellors' *priodoryon* 'proprietors, hereditary owners'
  kynydyon 'master of hounds' *racdywededigyon* 'aforementioned'
  dichwynnyon / *dihynnyon* 'remains' *rodyon* 'gifts'
  d(*y*)*lyedyon* 'debts' *rynyon* 'oatmeal'
  ebolyon 'foals' *swydogyon* 'officers'
  etifedyon 'heirs' *tragwydolyon* 'eternal'
  ffoaduryon 'refugees' *urdolyon* 'graduates'
  galwedigyon 'those called, summoned'

The reverse pattern, where the plural in -*on* is attested in at least two of the northern texts, and where a /j/ is never written, is found only for three items, namely *gwystlon* 'hostages', *lladron* 'thieves' and *Saesson* 'English people'. Two other items do not meet these criteria in the texts examined but may well nevertheless have shown the same pattern, namely two nouns with roots ending in /w/ in the plural, *athrawon* 'teachers' (sing. *athro*) and *kenawon* 'pups' (singular *keneu*), both found in the northern Peniarth 20 without /j/. The lack of /j/ in *lladron* and *Saesson* is presumably because the plural forms of these items were loaned as a unit into Brythonic and thereafter underwent normal phonological development.

The absence of /j/ in the other items is due to phonological factors, /j/ being lost historically after a cluster containing an obstruent followed by a liquid and after /w/. Comparison with Breton shows a similar group of items with -*on*, namely Middle Breton *lazron* 'thieves' and *Sauson* 'English people',[4] plus a group where the form may be dictated by the phonetic environment *quereon* 'cobblers' and *anauon* 'souls' (Hemon 1984: 35).[5] Corresponding to Welsh *athrawon*, some Breton dialects have forms with /j/ such as *aotrouyen*. As Trépos (1956: 176–7) notes, this may suggest a reconstruction with /j/. This is particularly so given that the /j/-full forms have a discontinuous geographical distribution in Breton. This implies early loss of /j/ in this environment in Welsh, *athrawyon* > *athrawon* (cf. also modern Welsh *ceidwad* 'keeper' < *cadw* 'keep' + agent suffix -*iad*, Morris-Jones 1913: 41). Loss of /j/ after a cluster containing a stop followed by a liquid is also a general feature of Welsh, for instance, *crwydrad* 'wanderer' < *crwydr-* 'wander' + agent suffix -*iad* (Morris-Jones 1913: 41, Russell 1990: 56).

The dominance of the first group over the second, and the fact that membership of the second group can be explained in terms of the phonological or lexical properties of the individual items involved, suggests that, in almost all cases, we are dealing with generalization of -*on* in the south (rather than generalization of -*yon* in the north), whether as a result of sound change (loss of /j/ in post-tonic syllables) or analogical extension of the -*on* suffix in place of -*yon*.

The group of variable items is relatively small. In addition to *tystyon, meibyon* and *dynyon* in Table 1, the chief variable items are *achwyss*(*y*)*on* 'causes', *kydymdeith*(*y*)*on* 'companions', *kyfeill*(*y*)*on* 'friends', *kynhenus*(*y*)*on* 'litigants', *deill*(*y*)*on* 'blind people', *doeth*(*y*)*on* 'wise people', (*y*)*ewyd*(*y*)*on* 'parts of a yoke', *golwyth*(*y*)*on* 'pieces of meat', *gweiss*(*y*)*on* 'servants', and probably also *amryfael*(*y*)*on* 'various'. Numbers of tokens are too small to make generalizations about individual items, but, overall, these items show consistent /j/ in the north, with absence of /j/ predominant but not universal in the south. That is, they would probably appear in the lower half of Table 1. *Bonhedigyon* 'nobles', *lleygyon* 'lay people' and *ysgolheigyon* 'scholars' seem essentially to belong to the group with consistent /j/, but have single isolated examples in southern texts without.

3.2.2 Distribution of /j/ in -*(y)*oed

The plural ending -(*y*)*oed* /joɨð/ is found with /j/ in the texts with only two items, namely *affeithyoed* 'accessories' (Cotton Titus D.ii and Peniarth 30) and *reithyoed* 'jurors' (Peniarth 30). These plurals are found only in the northern texts. The southern texts have plurals *affeith*(*y*)*eu* and *reitheu* for the items in question. All other plurals in -*oed*, including, for instance, *amseroed* 'times', *kenedloed* 'nations' and *gwiscoed* 'clothes', lack /j/ consistently. In this two items, /j/ is clearly an innovation. In both cases, /j/ lacks any historical justification (*affeith* < Latin *affectus* and *reith* < Common Celtic **rektu-*, cf. Old Irish *recht*). Furthermore, hypercorrection can be rejected as an explanation for these forms for two reasons: first, the ending -*yoed* is found exclusively in northern texts, but hypercorrections are expected to be characteristic of southern texts (cf. the hypercorrect form *eidyaw* above); secondly, there seems to be phonological conditioning of the /j/-full ending here, with -*yoed* occurring after some stems containing /el/ (cf. singular *affeith* and *reith*), and -*oed* occurring elsewhere.[6] This would be odd for hypercorrection. Compare also the situation with -(*y*)*eu* below.

Once it has been established that these are real forms, not hypercorrections, it seems fairly clear that the presence of /j/ in these forms is an analogical innovation in the north, based on an analogy with the form of the other suffixes containing /j/, in particular -*yon*. There is no obvious historical source for /j/ in -*yoed*, since, historically, the -*oed* ending develops regularly with no /j/ in former i-stems (-*oed* < **-ejes*, Lewis & Pedersen 1937: 172). The ending -*yoed* does not seem to arise in any noun through regular phonological developments, hence must be an analogical innovation.

3.2.3 Distribution of /j/ in -*(y)*eu

We now turn to the final relevant plural suffix, -(*y*)*eu*. With this ending, there are many nouns that occur only in /j/-less forms. A list is given in (3), based on the same criteria for inclusion as were used for -(*y*)*on* above.

(3)   *abadeu* 'abbots'   *gardeu* 'gardens'
       aelodeu 'limbs'   *gwyntysseu* 'buskins'
       agheneu 'needs'   *hebogeu* 'hawks'
       amhinogeu 'doorposts'   *hossanneu* 'stockings, boots'
       amobreu 'marriage fees'   *llodreu* 'breeches'
       anodeu 'postponements'   *lluesteu* 'encampments'

breinheu 'privileges'	*lluydeu* 'armies'
bronneu 'breasts'	*llyfreu* 'books'
calonneu 'hearts'	*mameu* 'mothers'
canhwylleu 'candles'	*megineu* 'bellows'
kledyfeu 'swords'	*messureu* 'measures'
coesseu 'legs'	*mynneu* 'kids'
cogeu 'cooks'	*negesseu* 'errands'
coredeu 'dams'	*oedeu* 'times'
krymaneu 'sickles'	*olwyneu* 'wheels'
krysseu 'shirts'	*pelleneu* 'disease of cattle'
cuaraneu 'boots'	*personeu* 'subordinate priests'
kynllyfaneu 'leashes'	*peitheneu* 'looms'
doleu 'loops, nooses'	*petheu* 'things'
doreu 'doors'	*sapeleu* 'chapels'
ffyoleu 'vials, cups'	*tadeu* 'fathers'
ffrwyneu 'reins'	*tlysseu* 'gems'
ffrwytheu 'fruits'	*torcheu* 'rings, loops'
gwydeu 'geese'	*troelleu* 'spinning wheels'
gradeu 'ranks, degrees'	*tydynneu* 'cottages, farmsteads'
gweeu 'webs'	*uffarneu* 'ankles'
gwedesseu 'weavers'	*urdeu* 'guilds'
gwestfaeu 'food rents'	*ysparduneu* 'spurs'
gwirodeu 'drinks'	

A much smaller groups is found only with /j/ in both the northern and southern texts:[7]

(4)	*brodyeu* 'judgments'	*esgidyeu* 'shoes'
	kesseilyeu 'armpits'	*ffinyeu* 'borders'
	klunyeu 'thighs'	*llesteiryeu* 'impediments, obstacles'
	defnydyeu 'instruments, requisites'	*nawfettydyeu* 'period of nine days'
	dydyeu 'days'	

The lack of variability with *esgidyeu* is confirmed by the modern dialect situation, where, according to the *Welsh dialect survey* (A. R. Thomas 2000: 335), all dialects of Welsh show a reflex of Middle Welsh /dj/ (one of /dj/, /dʒ/ or /tʃ/).

There is also a substantial group of variable items, given in (5). In general, these items show /j/-full forms in the northern texts, and /j/-less forms in the southern texts.

(5)	*affeithyeu* 'accessories'	*llyssyeu* 'plants, herbs'
	(*arfeu* 'weapons')	*meichyeu* 'sureties'
	(*camlyryeu* 'fines, forfeits')	*milltiryeu* 'miles'
	(*kebystryeu* 'tethers')	*neithyoryeu* 'weddings'
	klustyeu 'ears'	*pistlyeu* 'devices for attaching yokes to oxen'
	kreiryeu 'relics'	*pleidyeu* 'parties'
	kyfreidyeu 'requirements, supplies'	*probwyllyeu* 'parts of a plough'
	keillyeu 'testicles'	*ymdeithyeu* 'distances, journeys'
	datanhudyeu 'rights of succession to lands'	

Arfeu and *kebystreu,* both with just one instance of a /j/-full form (*arvieu,* Peniarth 29, 57.14; and *kebestyryeu,* Peniarth 29, 38.18) would perhaps be better placed in the non-varying /j/-

less class. *Camlyryeu*, with just one instance of a /j/-less form (*camlyreu*, Llanstephan 116, 7.9), should perhaps be in the non-varying /j/-full class.

Of the variable items, only three are attested in all the texts, namely *kreiryeu* 'relics', *kyfreithyeu* 'laws' and *meichyeu* 'sureties'. The distribution of the first two items was given in Table 3. *Meichyeu* is found only with /j/ in Cotton Titus D.ii (12 tokens) and Peniarth 29 (8 tokens). The three southern texts have only /j/-less forms. Peniarth 30 is mixed with 4 /j/-full tokens, and 3 /j/-less.

In contrast to the situation with -(*y*)*on*, there are relatively few nouns with only /j/-full forms, and many nouns with only /j/-less forms. Furthermore Welsh -(*y*)*eu* in Welsh never causes i-affection in the root. This suggests that, on the whole, the /j/-full forms have spread, with the southern texts representing the earlier situation here more faithfully that the northern texts. The situation seems to be similar to -*oed*, but on a larger scale, and we can posit analogical extension of /j/ to plural nouns originally ending in -*eu*, and analogical extension of the ending -*yeu* more generally. This analogical extension may have been early in the case of the nouns in (4), extending to south Wales before loss of /j/ in the onset of post-tonic syllables began there.

As with the ending -(*y*)*oed*, the main conditioning factor seems to be the vowel in the final syllable of the stem being a high vowel or a rising diphthong. This is the case in a large number of the nouns in (3) and (4). An association with a stem /eɪ/ diphthong is particularly apparent. Morris-Jones (1913: 38–9) notes the association between an /eɪ/ diphthong in the stem and a /j/ in the ending in modern literary Welsh, although he seems to regard it as a conservative feature. Insertion of /j/ with -*oed* is clearly a secondary innovation, so it makes sense to regard the presence of /j/ after /eɪ/ and other high vowels in the same terms. Addition of /j/ here would make sense either in phonetic or in morphophonological terms. Phonetically, the high vowel of the root may lead to a palatalized articulation of the following consonant (progressive assimilation), which could eventually lead to an off-glide between that consonant and the following (non-high) vowel. Morphologically, the alternation singular /a/ ~ plural /eɪ/ with /j/ in the ending was well established from i-affection in Middle Welsh, as we have seen with -(*y*)*on* already in cases like *mab* ~ *meibyon* and *gwas* ~ *gweisyon*. It is possible that the form of these plurals may have analogically influenced forms like *kreireu*, *kyfreitheu* and *meicheu* to give *kreiryeu*, *kyfreithyeu* and *meichyeu*, the only difference being that, in these latter cases, the diphthong was in the base form of the root and did not arise via i-affection caused by the ending. The latter explanation is probably to be preferred, given that there do not seem to be any cases of /j/ ~ ø variation arising from insertion (rather than loss) of /j/ in words that lack one of the variable suffixes, witnessed by the absence of forms like ****eidyaw*, ****teyrnyas*, ****kydymdeithyas* and ****kyweithyas* in the north (cf. above).

3.3 Distribution of /j/ in unsuffixed items

A number of items that are not morphologically complex, at least synchronically in Middle Welsh, nevertheless show variation very similar to that already considered. Table 3 showed that two of these items, *eidyon* 'bullock' and *eissyoes* 'nevertheless' pattern in a way fully in keeping with the patterns manifested by the suffixed items. In the texts, three further items, *eissyeu* 'want', *e*(*i*)*ryoed* 'ever' and *cyfeilyorn* 'error' seem to work the same way. Peniarth 36A, the most consistently 'southern' text, shows only forms of these items without /j/; Cotton Titus D.ii, the most consistently 'northern' text, shows only forms with /j/. There is some variability in the other texts, but a broad north-south pattern of variation very similar to that found with the variable suffixes emerges. Full details are given in Table 5.

Item	eissyeu		eryoed		cyfeilyorn	
Text	−	+	−	+	−	+
Cotton Titus D.ii	0	4	0	5	0	1
Peniarth 30	1	0	0	1	0	0
Peniarth 29	0	1	0	0	1	0
Jesus 57	16	0	0	0	0	1
Llanstephan 116	9	0	0	0	0	0
Peniarth 36A	8	0	1	0	1	0

Table 5. Distribution of /j/ in unsuffixed items.

In all three items, /j/ is historically primary. *Eissyeu* is a loan from Latin *exiguus*; although the diphthong /eɪ/ would be expected irrespective of whether /j/ follows in the next syllable (/eks/ > /eɪ/), /j/ appears to be primary here, being a reflex of the Latin /g/. *Eryoed* is transparently a reduction of *yr y oed* 'in, since his lifetime', with the masculine singular pronoun *y* surviving as /j/. In *cyfeilyorn*, we have the root -*org*- 'kill, destroy' (Old Irish *orcaid*), with preverbs *com*- and *are*- (cf. Old Irish *comrorcon* 'error'), hence *kom-are-org-n > /komarjorn/ > /kəvarjorn/ > /kəveɪrjorn/ via i-affection, with dissimilation to /kəveɪljorn/, see Lewis & Pedersen (1936: 286), Williams (1921: 227–8).

In the two other nonsuffixed items in Table 3, /j/ is also primary. *Eidyon* shows i-affection in the root (< *otjon), compare Breton *ijenn* with vowel affection, but note Cornish exceptionally without (Old Cornish *odion*) (see Jackson 1953: 596). *Eissyoes* is a comparable formation to *eryoed*, perhaps from *es i oes 'since, in his lifetime', with the pronoun triggering i-affection.

Given that all these items have etymological /j/ in them, the pattern of variation must be due to loss of /j/ in the south. This is an important conclusion, because it leads to the further firm conclusion that the variation here is the result of a sound change rather than analogy, since these items form no inflectional or derivational relations that could be the basis for analogical loss of /j/.

4   CONCLUSIONS

The patterns of variation found in the six law texts examined, in the context of the historical phonology of the variable items, suggests the following conclusions:

(i) most of the variation examined is due to loss of /j/ in the onset of the post-tonic syllable in southern dialects;
(ii) this loss of /j/ is a sound change, rather than analogical extension of /j/-less suffixes;
(iii) some variation arises from analogical extension of suffixes containing /j/ (-*yeu* and -*yoed*) mostly at the expense of their /j/-less counterparts (-*eu* and -*oed*) in northern dialects;
(iv) loss of /j/ shows a lexical diffusion style distribution, with /j/ having been lost in some items over a larger geographical area than in other items;
(v) on the whole, /j/-full forms have a wider geographical distribution in items where variation is due to the loss of /j/ than where it is due to analogical extension of /j/-full suffixes;
(vi) hypercorrection can be identified by a characteristic pattern (a /j/-full variant found sporadically in southern texts but not in northern ones); it exists in two of the southern manuscripts examined (Llanstephan 116 and Jesus 57), indicating some attempt to adhere to a northern literary standard.

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[1] All references to Peniarth 29 are to Lewis's edition.

[2] P. W. Thomas (1993: 26) puts *ceiniog* 'penny' in this category. The exact extent of the category depends on the synchronic analysis of various items. The *-iog* in *ceiniog* is historically a derivational suffix, but it is unclear what root to derive it from synchronically, and the form would probably best be treated today as containing a single morpheme synchronically (on *ceiniog*, see also Russell 1993: 45).

[3] As with many plurals in *-yon*, *meibyon* is a new Brythonic plural. The inherited plural /mapi:/ gives the Middle Welsh form *meib* used after numerals. The re-formation with /mapjon/- must have been late Brythonic, since it is common to Welsh *meibion*, Breton *mibien* and Cornish *mebyon*, *mebyen*. The exact date of the re-formation need not concern us here; for discussion, see Koch (1983: 207, 224–7).

[4]   Some Breton dialects, in a continuous central band to the northwest of the Vannetais area, have forms with /j/ of the type *laeryen* for 'thieves'. This is likely to be an analogical re-formation based on the majority pattern with *-yen* (Trépos 1956: 183).

[5]   Hemon also lists Middle Breton *gadon*, *guedon* 'hares' (singular *gat*), which has no parallel in Welsh (cf. also Lewis & Pedersen 1937: 178). The variant with i-affection may point to earlier **guedion*, with loss of /j/, perhaps sharing in the early development of southern Welsh dialects.

[6]   The conditioning factor may be a high vowel in the stem, in which case the form *gwiscyoed* 'clothes' would also be expected in northern texts. Instead, we find the form *guyscoed*, once in Cotton Titus D.ii. However, *Geiriadur Prifysgol Cymru* 1670 lists *gwisgioedd* as a possible form, although it gives no examples. In the light of this, the example *vilyoed* 'thousands' (*BD* 67.13 and elsewhere in the same text) reflects an expected development, cf. also *kenueinyoed* 'religious communities, convents' (*BD* 190.24), *kenueinhyoed* (*BD* 189.26), *genueinyoed* (*BD* 2.25, 62.20), *genueinioed* (*BD* 62.15); and *muryoed* 'walls' (*BD* 44.13, 109.21, 141.20, 141.22), with *-yoed* after high vowels, predominantly /eɪ/. D. Simon Evans notes the existence of two instances of the form *milyoed* (*HGK* 9.7, 15.29) in his edition of *Historia Gruffud vab Kenan* (ccxcii), which adds further support to the reality of the form.

[7]   Stems that end in /ɨ/ (e.g. *lletyeu*, *modrwyeu* 'rings') cannot easily be included in either category.