**Age variation and language change in Welsh: auxiliary deletion and possessive constructions**

Davies, Peredur

Under review. To be published as a book chapter in: *Sociolinguistics in Wales*, eds. Durham, M. and Morris, J. London: Palgrave MacMillan.

1. **Introduction**

Synchronic age variation in linguistic data can be a snapshot of long-term diachronic change in the language. An increase or decrease in the use of a variant across speakers of different ages, where young speakers use more of a variable than older speakers, for example, can be interpreted as change in progress via the apparent time construct (e.g. Bailey, Wikle, Tillery and Sand, 1991; Cukor-Avila and Bailey 2013), which posits that “differences among generations of similar adults mirror actual diachronic development in a language” (Bailey *et al* 1991, p. 241). It has been argued that Welsh is undergoing language change, often because of direct influence from English (e.g. Thomas 1982; Phillips 2007). With this in mind, my aim in this chapter is to examine two features of grammatical variation in contemporary spoken Welsh which are examples of language change. I will show from my analysis how different patterns of age variation can indicate different stages of language change by highlighting the difference between changes which are nearing completion (where the new variant has almost entirely displaced the old) or which are still underway (where there will be more substantial generational differences). Furthermore I will be considering how we can look at age variation data to find out more precisely when changes started to propagate and spread in relation to one another. This paper also hopefully contributes to the study of Welsh linguistics as it comprises a discussion of two hitherto little-discussed parts of Welsh grammar.

After describing the corpus from which the data will be taken, I shall report on the results of the two studies. First, I will consider auxiliary verb deletion in Welsh. Davies and Deuchar (2014) argued that the change under examination (deletion of the 2nd person singular present tense auxiliary *wyt* in certain constructions) is nearing completion, since all speakers now delete the auxiliary very frequently, although there is a small but statistically significant change between older speakers and speakers from other age groups. In the current chapter, I will elaborate on the nature of the change found in the different forms of the same auxiliary by focusing on the parts of Davies & Deuchar which considered age variation. I will compare the pattern found with that feature with that found with the second feature being considered, namely Welsh possessive constructions, where a non-traditional construction shows increased frequency of use by younger generations, but where the change seems to still be underway. I will then discuss the ramifications of the findings from both studies, and compare what they show about the nature of age variation and language change.

1. **Methodology**

Given the increased availability of Welsh linguistic corpora today, it is now possible to use corpus data to analyse the grammar used by a wide range of Welsh speakers from different backgrounds. In particular, the *Siarad* corpus of the speech of Welsh-English bilinguals, collected between 2005 and 2008 by a research group based at Bangor University, Wales, is a valuable resource for this purpose, and both analyses I report on in this chapter use data from this corpus (see Deuchar et al. in this volume for further research on/description of this). *Siarad* consists of about 40 hours of spontaneous, informal speech by 151 participants, recorded in conversation in pairs or small groups where those conversing know one another well and recorded in informal surroundings without a researcher participating in the conversations. The primary research aim of the corpus as designed was to analyse code-switching by Welsh speakers. The corpus has been fully transcribed, glossed and translated, and is available for researchers at <http://www.bangortalk.org.uk>. All the analyses presented in this chapter will use data extracted from *Siarad*.

The corpus was collected with the aim of representing the informal speech (primarily Welsh) of Welsh-English bilinguals from a range of backgrounds and from across Wales and beyond, the only prerequisite being that they be speakers of both Welsh and English. We aimed for a broadly balanced distribution of major sociolinguistic factors where possible. Each participant was given a questionnaire to collect information about their background. Below are some of the variables which we tried to account for when recruiting participants:

* *Gender:* 54% of speakers were female, 46% were male, which is representative of the overall gender distribution in Wales.[[1]](#endnote-2)
* *Age:* The participants recruited were primarily adults (18 years old or above), although a small number of participants of school age were also recruited. The age range of participants is between 12 and 89. The aim was to recruit participants from across the age range. The corpus is slightly more biased towards younger participants than older participants – e.g. there are 27 participants who are under 20 years old, whereas there are only 15 participants who are 70 or older – which may be related to the university environment from which the data collection was organized, and/or the generally young social networks of the researchers.
* *Place where they grew up:* The town or area where a participant grew up was used as a guide to their dialectal variety. The majority (111 or 74%) of participants in *Siarad* grew up in north-west Wales – e.g. Gwynedd, Anglesey – which probably represents the project team, who were based in this area, using their local networks to recruit participants. 34 participants came from other parts of Wales and 6 participants were not born in Wales.
* *First language:* The majority of the participants had Welsh as their first language (94 or 63%), which may represent again the area where the project team were based, where native Welsh speakers are commonly found. 34 (23%) reported they had acquired Welsh and English simultaneously, while 20 (13%) had English as their first language. 2 speakers had neither Welsh nor English as their first language. The corpus therefore primarily represents the speech of people who have spoken Welsh from birth/an early age, as opposed to second language learner speech.
* *Education level:* The majority of participants (113 or 75%) reported that they had qualifications of A-levels[[2]](#endnote-3) or higher, and indeed 48% of participants had a University degree (Bachelor’s or higher). Only 38 (25%) participants only had educational qualifications below A-level. Thus the speskers in *Siarad* tend to have relatively high levels of formal education.

The ratios above represent the challenges of collecting a corpus with such a broad speech population. Nevertheless, I would argue that the large number of participants included in the corpus allows for any analysis of the whole corpus to be generally representative of Welsh speech.

For the study on auxiliary verb deletion reported in section 3, 28 speakers’ speech was analysed, while for the study on possessive constructions, the output of all speakers in the *Siarad* corpus were included in the analysis. Further details on specific analyses are provided in the relevant sections of this chapter.

Further details on the participants included in *Siarad* can be found in Deuchar, Davies, Herring, Parafita Couto & Carter (2014) and in Deuchar, Davies & Donnelly (forthcoming).

1. **Results: Variation in auxiliary verb deletion**

Welsh sentence structure allows for periphrastic constructions where a finite auxiliary verb precedes the subject and a nonfinite main verb comes later in the clause. Periphrastic constructions are very frequent in the informal spoken language. An example of an auxiliary construction from the *Siarad* corpus is given in (1) below, where the auxiliary *wyt*, a 2nd person singular present tense form of *bod* ‘be’, precedes the subject *ti* ‘you’; and the nonfinite main verb *byw* ‘live’ comes later in the sentence; these words have been highlighted in bold.

1. *oh yeah os* ***wyt*** *ti ’n* ***byw****... yn Chirk*

oh yeah if be.2s.pres 2s prt live.nonfin in Chirk

*ynde.*

eh

“Oh yeah, if you live... in Chirk, eh.” [davies11-Rachel] [[3]](#endnote-4)

In spoken Welsh it is common (Borsley, Tallerman and Willis 2007, pp. 260-1) for the auxiliary verb to be ommitted, at least in some contexts (e.g. for a particular person, number, tense, depending on the speaker or dialect), resulting in a sentence like that shown in (2). In this example, the 2nd person singular auxiliary verb, *wyt* in the previous example, has not been produced, resulting in a clause-initial 2nd person singular subject pronoun *ti* and a nonfinite main verb *jocian* ‘joke’. The particle *‘n* in both (1) and (2) denotes nonperfective aspect.

1. *ti ’n jocian.*

2s prt joke.nonfin

‘You’re joking.’ [davies6-Daniel]

I call this auxiliary deletion (AuxD), and it can be observed primarily with auxiliary forms of *bod* ‘be’ in periphrastic constructions in informal Welsh, although each of the different inflections of the auxiliary do not delete equally, as will be discussed below.

While in Davies and Deuchar (2014) we suggested that AuxD in Welsh may have first appeared during the 20th century (see below), recent research by Willis (forthcoming) finds that AuxD is in fact first attested in Welsh, albeit in a restricted fashion, considerably earlier in history. Willis finds many examples of AuxD in some Welsh translations of Harriet Beecher Stowe’s novel *Uncle Tom’s Cabin* published between 1852 and 1854 by various translators*.* In several of these translations AuxD (or copula deletion) is used in the translated speech of the black slave characters to represent their speech variety: e.g. “I rides a leetle ahead” is translated by Hugh Williams in his 1854 translation as *fi dipyn bach o’u blaen nhw* “I am a little bit ahead of them”, rather than *(r)wyf fi* *dipyn bach o’u blaen nhw*, i.e. with a deleted 1st person singular present tense verb *(r)wyf*. Willis argues that this linguistic choice shows the author seeking to represent a kind of pidgin Welsh intended to reflect the creolized English of black Americans of that time period. Willis finds an even earlier appearance of AuxD from an 1850 text by William Rees, *Llythyrau ‘Rhen Ffarmwr [The letters of the Old Farmer]*, where the narrator is a landowner who professes to not being able to speak or write Welsh well, implying that AuxD is a feature of imperfectly-learnt second-language Welsh. Indeed, Willis points to repeated use of AuxD in writings throughout the 19th and early 20th century as a tool used by Welsh authors to characterize the speech of non-fluent second-language learners of Welsh, which Willis argues is a strong indicator that this change was perceived as coming from outside, i.e. via English, with AuxD later spreading to the speech of native Welsh speakers through prolonged language contact. Linguistic influence of English on Welsh has deep historical roots, and is most clearly evident via the extensive lexical borrowing from English found in Welsh (e.g. Parry-Williams 1923). Contact between the two languages dates back ultimately to the period of Anglo-Saxon settlement but certainly more intense in recent centuries (Davies 1994), given that bilingualism in Welsh and English is now universal for adult Welsh speakers and that English is spoken by almost everyone in Wales.

These facts points to AuxD being considered historically highly nonstandard, and indeed the deleted form is absent from many grammar books as recently as the late 20th century, such as Williams (1980) and Thorne (1996), which only provide the full, undeleted form. Nonetheless, there are linguistic discussions of AuxD of the 2nd person singular present tense form of *bod* ‘be’, *wyt* – probably the most common type – which indicate that was a feature of informal Welsh at least as early as the 1970s (Jones and Thomas 1977; Roberts 1988, describing data collected in the early 1970s). Authors describing 21st century Welsh note that AuxD of *wyt* is “particularly common” (Borsley *et al*, 2007, p. 261), and that deletion of other forms of *bod* vary according to dialect. There is also evidence that AuxD is becoming more frequent, at least in some dialects: research by Jones (1998) on Welsh in two communities, Rhosllanerchrugog in north-east Wales and the Rhymney Valley in south-east Wales, which she identified as undergoing dialect obsolescence and language shift, finds that speakers are more likely to delete the auxiliary the younger they are, which one can explain as representing a change in progress, where deleting the auxiliary is increasingly becoming the norm. While Jones focused on communities where Welsh is arguably undergoing language shift, Davies and Deuchar (2014), presenting analysis first shown in Davies (2010), looked at the speech of a wide range of different speakers from diverse communities across Wales and also identified significant age variation, which the authors argued to show a change in progress. I summarize the results of that study here, focusing on the age variation we identified, and then elaborate by suggesting the ways in which the change might spread in the future.

In Davies and Deuchar, we presented a corpus analysis of the speech of 28 speakers, from 13 different recorded conversations in the *Siarad* corpus, who had been selected to be generally diverse and balanced in terms of age and gender: half the speakers were male and half female and the age range was 12 to 81 (mean = 43) – although all but one speaker analysed was 18 or older. The places where the selected speakers grew up were as follows: 18 from north Wales, 8 from south Wales, one from mid-Wales and one from England. All spoke Welsh and English fluently.

The analysis focused on auxiliaries with the 2nd person singular present tense form of *bod* ‘be’, which is *wyt* and pronounced variously [ut], [uɨt], [it] etc. This form was chosen because it was common across all the *Siarad* data and was a type of AuxD that speakers of all dialects appear to use (see discussion above). One reason for its commonness in the data is probably that the conversations in *Siarad* are usually between pairs of friends or family and are thus overwhelmingly in an informal style, which results in the familiar 2nd person address form being used frequently. 643 tokens were extracted from the dataset and were labelled for whether they deleted or retained the auxiliary verb *wyt*.

The aggregate variation (retained versus deleted auxiliary) is illustrated in figure 1. Overall, the pattern found was that the deletion of the auxiliary *wyt* is very common, with 93.0% of clauses, 598 out of 643 tokens, having a deleted auxiliary.

Figure 1: Overall frequency of deleted versus retained 2nd person singular present tense auxiliary *wyt* in the dataset.

|

Furthermore, the authors found that at least 50% of the tokens for each speaker analysed had a deleted auxiliary, indicating that none of the speakers never delete the auxiliary, and some speakers even deleted the auxiliary in 100% of their tokens, although the authors assume that this does not mean they lack +A in their repertoire entirely (e.g. they might well prefer to retain the auxiliary for formal speech, but analysing stylistic variation is out of the scope of the *Siarad* corpus as it contains only informal speech).

One explanation for the AuxD change we gave in Davies and Deuchar (2014) linked to convergence, which we classify as the grammar of one language changing to be more similar to that of another language which it is in contact with. The auxiliary-deleted form of a Welsh sentence typically results in the subject being the first overt constituent (AuxSVO becomes SVO), which is superficially similar to the SVO word order normally found in English main clauses. In Davies and Deuchar we argued that speakers may be being influenced by the prevalence of this word order in English and are increasing the frequency of SVO clauses in their Welsh by deleting the auxiliary.

We then analysed the data according to the variable of age, dividing speakers into age bands (10-19, 20-29, etc. up to 60+) to see if speakers of different ages were more or less likely to delete *wyt*.[[4]](#endnote-5) The age variation is illustrated in figure 2 and the daya is given in table 1.

Figure 2: Age variation (by age band) in frequency of deleting the auxiliary *wyt* in the dataset.

Table 1: Age variation (by age band)in frequency of deleting the auxiliary wyt (-A) in the dataset.

|  |  |  |  |
| --- | --- | --- | --- |
| **Age bands:** | **Auxiliary retained (% within group)** | **Auxiliary deleted (% within group)** | **Total number of tokens** |
| **10 to 19** | 93.3% | 6.67% | 75 |
| **20 to 29** | 93.0% | 7.04% | 199 |
| **30 to 39** | 94.0% | 5.98% | 117 |
| **40 to 49** | 96.9% | 3.13% | 160 |
| **50 to 59** | 84.0% | 16.00% | 75 |
| **60+** | 88.2% | 11.8% | 17 |

A Chi-square test for independence showed statistically significant variation at the 5% level across age bands (χ2 = 4.389, p = .036, without continuity correction; Cramer’s V = .083), which speakers below 50 deleting *wyt* more frequently than those 50 or older. However, speakers aged 60 or older still produced high frequencies of auxiliary deletion, and the value of Cramer’s V indicates that the difference identified is, while significant, not very strong.

1. **Results: Variation in possessive construction type used by speakers**

Welsh possessive noun phrases traditionally follow one of two patterns: one option has a preposed possessive clitic (inflected for person and number of the possessor) which precedes the possessed noun, illustrated in (3), or with both this proclitic *and* with a dependent personal pronoun following the possessed noun, as illustrated in (4). Neither option appears to carry a different meaning or particular emphasis (Borsley *et al* 2007; although cf. Morris-Jones 1931 who argues that the latter option can be used “to add clearness or emphasis to a pronominal element already expressed” [1931, pp. 81-2). The possessive constructions are in bold in these examples.

1. Gwelodd y dyn **ei arth.**

see.3s.past det man poss.3s bear

“The man saw **his bear**.”

1. Gwelodd y dyn **ei arth o.**

see.3s.past det man poss.3s bear 3sm

“The man saw **his bear**.”

While there is no clear semantic difference between the two types, one distinction between them is dependent on the medium or formality of the discourse. Typically, the type illustrated in (3) is considered more appropriate for a literary and/or formal style than the one shown in type (4). Watkins (1977) discusses the relationship between the two types, noting that the former is associated with the written language and the latter with the spoken language, even to the point that novelists will use the former type in narration but the latter type when representing spoken dialogue. The “sandwich” construction (I call it so because the possessum is sandwiched between two elements) seen in (4) is probably the prototypical option in present-day spoken Welsh (Watkins 1977; John Morris-Jones stated that “[i]n the spoken language the affixed pronoun [i.e. found in the ‘sandwich’ type] is almost always heard even when unemphatic, whenever it is admissable” [1931, p. 84]) but that both can be found in the spoken language (as acknowledged by e.g. Morris-Jones and identified in data by e.g. Awbery 1994). In this paper I will use the following shorthand to distinguish between types: I will refer to the possessive construction in (3) as the literary construction (LC) and the construction in (4) as the sandwich construction (SC). These are only labels, however, and are not intended to imply that e.g. the LC is *only* found in written or high-register Welsh (as will be seen, both types are found in the *Siarad* data I analysed).

It has been shown (Awbery 1994) that, at least for some speakers, correferential features dictate which of the two types is selected. Awbery found that old Welsh speakers (b. 1890-1900) from Pembrokeshire in south-west Wales would categorically only use the literary type when the referent of the possessive NP matched the referent of the clause’s subject, and conversely only used the sandwich type where the referent of the possessive NP did not match the subject’s referent. However, Borsley *et al* (2007) suggest that not all speakers adhere to this rule catgeorically. Thus it is reasonable to assume that for some speakers the selection of SC over LC is driven by factors other than referentiality (although I will not be considering referentiality in the analysis I present here). Note also that the use of either LC or SC is not permissible in certain idiosyncratic constructions,[[5]](#endnote-6) as detailed by e.g. Watkins (1977), but I will also not consider such exceptions here as they are not numerous.

A third option for constructing a Welsh possessive noun phrase, which I will call the colloquial construction (CC), has apparently become increasingly frequent in recent years, at least among certain speakers and/or in certain dialects (e.g. M.C. Jones 1998; Borsley *et al* 2007), and used to be associated primarily with children’s speech (e.g. Jones & Thomas 1977; Awbery 1994; B.M. Jones 1990). This option lacks a possessive proclitic and instead just uses a postnominal pronoun, as illustrated in (5).

1. Gwelodd y dyn **arth (f)o.**

see.3s.past det man bear 3s

“The man saw **his bear**.”

Authors like Borsley *et al* (2007) have proposed that the CC pattern is an extension or analogical levelling of the normal construction used in Welsh for nonpronominal noun phrases, where the possessor follows the possessum, as shown in (6), where the proper noun *Dafydd* follows *arth* ‘bear’.

1. Gwelodd y dyn **arth Dafydd.**

see.3s.past det man bear Dafydd

“The man saw **Dafydd’s bear**.”

One could link this extension to language shift (Jones 1998), in the form of grammatical simplification resulting from lack of input of the historical possessive forms.

The CC possessive is another linguistic feature which Willis (forthcoming) identifies as a feature used by some 19th century Welsh authors to represent the speech of second-language and/or non-fluent learners of Welsh – discussed in the previous section – which, as (perhaps coincidentally) with AuxD, points to this construction being viewed as nonstandard – although the analysis I present below is not able to show whether it is more frequent in the speech of second language speakers than first language speakers. It has seemingly been used in Welsh for over a century and a half, but even as recently as the late 1970s the CC option was considered by some linguists as being highly “sub-standard” (Jones & Thomas 1977, p. 172), with a “disturbingly high frequency in the speech of young children” (ibid.); Borsley *et al* (2007, p. 159) note that CC is “considered non-standard”. Nevertheless, Roberts (1988) found that it was common in the speech of many speakers in Pwllheli, north-west Wales, in the 1970s, B.M. Jones (1990) identified it as being widespread in adult speech in the late 1980s, and M.C. Jones (1998), analyzing speech in the 1990s in communities which she argued to be undergoing language shift, found that CC was present in most of her participants’ speech and showed statistically significant age variation, with speakers more likely to produce the CC type the younger they were.

R.J. Davies (2012) examined the possessive constructions used in online Welsh writing on the social networking site Twitter, and found that 47.2% of 58 tokens used only the prenominal pronoun (LC), 19.2% used both a prenominal and postnominal pronoun (SC) and 32.9% used only a postnominal pronoun (CC); thus LC was the most frequent type used. She also found that participants from south Wales used more of the colloquial construction type than participants from north Wales, which – accepting that she looked at only a very small sample of data – points to a dialectal difference in usage (albeit that the data is typed and not spoken).

Several of these studies point to Welsh speakers from varying backgrounds using CC more frequently the younger they are, with differing reports on the frequency of CC in the speech of older speakers/adults. I present here an analysis which focuses on 1st person plural constructions (e.g. *ein hafal / ein hafal ni / afal ni* ‘our apple’) and both masculine and feminine 3rd person singular constructions (e.g. *ei afal /* *ei afal o / afal fo* ‘his apple’). The CLAN programme (MacWhinney 2000) was used to extract all clauses containing an appropriate construction from the corpus, and any inappropriate or incomplete constructions were excluded from analysis. The final sets of analyses consists of 134 tokens of 1st person plural constructions and 1055 tokens of 3rd person singular constructions. I will discuss the findings of both analyses in turn before comparing the two sets.

Examples of 1st person plural possessive constructions in *Siarad*, of all three possessive types, are given below in (7), (8 and (9). The possessives are in bold in each example and a superscript label identifies which of construction types (SC, LC or CC) it is.

1. *oedden ni wedi cael* ***ein bwyd lc****...*

be.1pl.imp 1pl prt.past have.nonfin poss.1pl food

‘We had had our food...’ [Fusser13-Beinon]

1. ...*yn* ***ein pwyllgor ni sc*** *nos Lun nesa fydd*

in poss.1pl committee 1pl night Monday next be.3s.fut

*raid ni sôn am hynna.*

need 1pl mention.nonfin about that

‘In our committe next Monday night we’ll have to mention that.’ [Fusser32-Matthew]

1. *oh,* ***pres ni cc***  *ydy o yn diwedd, te*, *yeah.*

oh money 1pl be.3s.pres 3sm in end tag yeah

‘Oh, it’s our money in the end, eh, yeah.’ [Fusser23-Heledd]

The frequency in *Siarad* of each type is illustrated in figure 3.[[6]](#endnote-7)

Figure 3: Overall frequency of use of the different types of 1st person plural possessive construction in the *Siarad* corpus.

As figure 3 shows, the colloquial construction is the most frequent construction used overall (98 or 73.1% of 134 tokens), while the other two types are used about as frequently as each other (sandwich construction 19 tokens or 14.2%; literary construction 17 tokens or 12.7%).

To analyse age variation, speakers were divided into age bands (10-19 years old, 20-29, etc.). The frequency of each 1st person plural possessive construction type is illustrated in figure 4 below and the data is shown in table 2.

Figure 4: Age variation in the frequency of the different types of 1st person plural possessive construction used by speakers in the *Siarad* corpus (by decade age bands; *p* = .066).

­­

Table 2: Age variation in frequency of use of different 1st person plural possessive construction types.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10-19 | | 20-29 | | 30-39 | | 40-49 | | 50-59 | | 60+ | |
| *n* | % | *n* | % | *n* | % | *n* | % | *n* | % | *n* | % |
| Sandwich type | 2 | 6.5 | 2 | 6.1 | 4 | 22.2 | 3 | 17.6 | 3 | 23.1 | 5 | 27.8 |
| Colloquial type | 28 | 90.3 | 25 | 75.8 | 14 | 77.8 | 11 | 64.7 | 6 | 46.2 | 11 | 61.1 |
| Literary type | 1 | 3.2 | 6 | 18.2 | 0 | 0.0 | 3 | 17.6 | 4 | 30.8 | 2 | 11.1 |
| Total | 31 | 100.0 | 33 | 100.0 | 18 | 100.0 | 17 | 100.0 | 13 | 100.0 | 18 | 100.0 |

The pattern in figure 4 is not very clear, but broadly it can be seen that younger speakers (under 39) produce more CC than older speakers, although speakers 60 and over produce more CC than speakers in the 50-59 age group. A broad pattern of younger speakers producing very little SC or LC compared to older speakers can also be identified, although note that CC is clearly the most frequently selected construction for all age groups.

A Chi-square test for independence was made to see if there is a relationship between age band and 1st person plural possessive constructions, but the relationship was not found to be statisically significant (p = .066, df = 12, Cramer’s V = .274). Since there are not many tokens in each cell, however, this might affect the reliability of the statistical tests the relationship between age and 1st person plural possessive use may be on the borderline of significance, and if more tokens were available then perhaps the pattern would be clearer.

I now turn to the 3rd person singular (masculine and feminine) constructions. Examples from *Siarad* of all three types of possessive are shown in (10) through (15) below.

1. *yeah dw i meddwl Jemimah[[7]](#endnote-8) oedd* ***ei***

yeah be.1s.pres 1s think.nonfin Jemimah be.3s.imp poss.3sf

***enw hi.sc***

name 3sf

‘Yeah, I think her name was Jemimah.’ [davies2-Greta]

1. *oedd* ***ei frawd e sc*** *yn vet neu rywbeth?*

be.3s.imp poss.3sm brother 3sm prt vet or something

‘Was his brother a vet or something?’ [davies11-Rachel]

1. *gynni hi ‘m tyllau yn* ***ei chlustiau******lc*** *chwaith..*

with.3sf 3sf neg holes in poss.3sf ears either

‘She doesn’t have holes in her ears, either.’ [robert9-Pen...]

1. mi losgodd o **ei geg**.***lc***

prt burn.3s.past 3sm poss.3sm mouth

‘He burnt his mouth.’ [davies10-Cledwyn]

1. *...a dyn nhw ddim yn... ailhysbysebu* ***swydd hi***. ***cc***

and be.3pl.pres.neg 3pl neg prt readvertise.nonfin job 3sf

‘...and they’re not... readvertising her job.’[stammers6-Ifan]

1. *wel wnaeth o a ‘i gariad o*

well do.3s.past 3sm and poss.3sm girlfriend 3sm

*gorffen fath â tra oedd o wneud*

finish.nonfin kind with while be.3s.imp 3sm do.nonfin

***dissertation o****.****cc***

dissertation 3sm

‘Well, he and his girlfriend broke up while he was doing his dissertation.’ [davies12-Ceri]

For the purpose of this analysis I combined the masculine and feminine pronouns. The frequency of each type is illustrated in figure 6 below.

Figure 5: Overall frequency of use of the different types of 3rd person singular (masculine and feminine combined) possessive construction in the *Siarad* corpus.

Figure 5 shows that the most frequent type used for 3rd person singular possessive constructions overall is, perhaps surprisingly, LC (427 or 40.5% of 1055 tokens), but the other types are also frequent (SC = 291 tokens or 27.6%; CC = 337 tokens or 31.9%).

To analyse age variation, speakers were again divided into age bands by decade. The frequency patterns across age bands is illustrated in fugure 6 and the data is shown in table 3.

Figure 6: Age variation in the frequency of the different types of 3rd person singular possessive construction used by speakers in the *Siarad* corpus (by decade age bands; *p* = .0005).

Table 3. Age variation in frequency of use of different 3rd person plural possessive construction types.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 10-19 | | 20-29 | | 30-39 | | 40-49 | | 50-59 | | 60+ | |
| *n* | % | *n* | % | *n* | % | *n* | % | *n* | % | *n* | % |
| Sandwich type | 16 | 14.0 | 43 | 22.1 | 23 | 21.7 | 42 | 35.6 | 55 | 25.2 | 117 | 38.5 |
| Colloquial type | 80 | 70.2 | 89 | 45.6 | 31 | 29.2 | 21 | 17.8 | 44 | 20.2 | 72 | 23.7 |
| Literary type | 18 | 15.8 | 63 | 32.3 | 52 | 49.1 | 55 | 46.6 | 119 | 54.6 | 115 | 37.8 |
| Total | 114 | 100.0 | 195 | 100.0 | 106 | 100.0 | 118 | 100.0 | 218 | 100.0 | 304 | 100.0 |

The overall pattern of age variation in 3rd person singular constructions is clearer than for the 1st person plural possessives. All generations produce all three possessive types, but with clear differences. LC, whilst most common overall (see figure 5) and used with fairly high frequency by most generations over 19 (see figure 6), is notably less frequent in the speech of the youngest speakers. An inverse pattern can be seen for SC, which is more common in the speech of the older generations than the younger generations. Most striking is the difference in use of 3rd singular CC across generations. The youngest group (10-19 years old) heavily favour CC and disfavour the other two types, and there is an obvious spike in the data in frequency of CC for speakers aged under 40. The older the speaker, the more SC and LC they use and the less CC they use. A crossover point can be seen in the 30-39 age group, who use SC and CC as frequently as each other. A Chi-square test shows that the relatiohsip between 3rd person singular possessive type and age is statistically significant at the 5% level (p = .0005, df = 10, Cramer’s V = .266). I discuss these findings in the next section.

1. **Discussion**

Generational differences were found in both studies, but with contrastive patterns. I will first discuss the ramifications of the auxiliary deletion analysis, before proceeding to compare the findings of the possessive construction analysis.

In Davies and Deuchar (2014), we argued that the age variation found in the data points to language change in progress, with apparent time representing a diachronic increase in deleting the auxiliary since when the eldest speakers were born (in the first half of the 20th century). Even though the pattern on the graph is not a clear S-curve, the speakers under 50 all produce about the same frequency of auxiliary deletion, which suggests that the change has plateaued and perhaps reached completion. Since the frequency of deleting the auxiliary is high for most speakers, even elderly speakers (note that even the 60+ group produce 88.2% deletion), the authors suggest that this is a change which has been underway for a long time. Adding to this the recent findings by Willis (forthcoming) that AuxD may have been present in—or stereotypically indicative of—the Welsh speech of second-language learners of Welsh from the mid-19th century, it is plausible here to propose that AuxD remained a novel but uncommon form until the middle of the 20th century – the earliest explicit mention of Welsh AuxD in a grammar book that I have found is in Jones & Thomas (1977) – after which it spread and became more frequent. In Davies and Deuchar we point to historical events which occurred in that period, like the increase in Welsh-medium education and an increase in awareness of Welsh identity and of language campaigning, and we suggest that this could have led to an increase in younger people taking up Welsh, which may have led to an acceleration of grammatical change.

In Davies and Deuchar we argue that the small (albeit significant) gap between the younger and the older speakers may reflect late-life uptake of the novel form by older speakers once it has become the norm among younger speakers, a process called ‘late adoption’ by Boberg (2004) and “lifespan change” by Sankoff & Blondeau (2007); the latter classify it as a change in the speech of individuals later in life in the direction of a change in progress by other speakers in the community.

Despite the statistically significant difference between the older and the younger groups in the frequency of deleting the auxiliary, then, the findings point to the change nearing completion. All age groups delete the auxiliary *wyt* with high frequency, and it can be predicted that real-time data collected in the future would show that the newest generation of speakers would delete *wyt* even more frequently than the current youngest age group. Given that even the oldest speakers are apparently now abandoning the auxiliary-retained form of the construction, I predict that the form that retains the auxiliary will become more and more restricted in use in the future, possibly only continuing to be found in formal or literary language. The indicator of a change having reached completion would be a lack of age variation, since all speakers will be presumed to delete the auxiliary *wyt* in this context.

While deletion of 2nd person singular *wyt* is very frequent and seemingly in all informal varieties, deletion of other persons are limited to certain dialects, partiuclarly in south Wales (cf. Borsley *et al* 2007, p. 261). Consider the clause shown in (16), taken from the *Siarad* corpus (English code-switched words are underlined in examples).

1. *fi just yn dibynnu ar y style, though, yn*

1s just prt depend.nonfin on det style though in

*y diwedd.*

det end

‘I just depend on the style, though, in the end.’ [fusser27-Lisa]

[hypothetical form with a retained aux.: ***wyf*** *fi just yn dibynnu ar y style though yn y diwedd*]

The auxiliary deleted in (16) is presumably a 1st person singular present tense of *bod* ‘be’. The speaker here is from south Wales, where the form of this auxiliary is usually something like *wyf* [uiv] or *yf* [iv]. The form of the auxiliary for speakers of north Welsh varieties, however, is usually something like *ydw* [ədu] or *dw* [du] – and I have found no firm examples in *Siarad* of this auxiliary being deleted by speakers from north Wales. Based on this, and following Jones (2004), in Davies and Deuchar (2014) we argue that this difference between AuxD ‘scope’ in northern and southern varieties of Welsh is phonologically conditioned, whereby auxiliaries with an initial consonant[[8]](#endnote-9) are resistant to deletion, whereas auxiliaries which do not *can* be deleted. This seems to be the pattern identifiable in *Siarad* and in Welsh speech in general. The paradigm in table 4 below illustrates differences between the phonological form of the auxiliary in both dialects; I have given approximate pronunciations but there remain intra-regional differences which I have ignored for simplicity.

Table 4: Primary differences between the pronunciation of present tense auxiliary forms of *bod* ‘be’ in northern and southern varieties of Welsh (adapted from Jones 2004, pp. 88-9).

|  |  |  |
| --- | --- | --- |
|  | Northern Welsh | Southern Welsh |
| 1st singular | dw [du] | w [u] |
| 2nd singular | wyt [ut] | wyt [uɪt] |
| 3rd singular | ma’ [ma] | ma’ [ma] |
| 1st plural | dyn [dən] | ŷn [in] |
| 2nd plural | dych [daχ] | ŷch [iχ] |
| 3rd plural | ma’n [man] | ma’n [man] |

An eyeball of the *Siarad* data indicates that the following rules tend to apply with regards to deletion or non-deletion of auxiliary forms of *bod* ‘be’: forms which begin with [d] or [m] – like *dw* or *ma’* are seldom if ever deleted by most speakers, whereas forms which begin with a vowel – like *w*, *wyt* or *ŷn* can be deleted (and, going by the analysis presented here, are more likely to be deleted than retained). Phonologically, I propose that what may be going on is that the forms with initial consonants are considered ‘heavy’ enough that speakers choose not to phonologically reduce them, whereas conversely vowel-initial forms can be elided and reduced to the final consonant, which is in turn assimilated to the initial consonant of the following pronoun if applicable: e.g. *ŷn ni’n mynd* [in nin mind] ‘we are’ > *ni’n mynd* [nin mind].

In northern speech only the 2nd singular *wyt* has an initial vowel – the rest of the forms typically have an initial consonant – whereas in southern speech only the 3rd person forms tend to have initial consonants.[[9]](#endnote-10) The pattern, then, is that AuxD in southern varieties can take place with more verb-forms than it does in northern varieties, due to a phonological factor which restricts the scope of the change. The change occurs in both northern and southern varieties for 2nd singular *wyt*, because its form happens to begin with a vowel in all varieties of Welsh. Furthermore, if I hypothesize that the same change in frequency of AuxD is not only happening in constructions involving 2nd singular *wyt* – as argued in this section – but also, in southern Welsh speech, to other forms as well, then I would expect to see the same age variation patterns in the distribution of AuxD across age bands with southern forms like the 1st person singular or 2nd person plural.

Note that, despite this, there *is* some limited evidence in *Siarad* of speakers of northern dialects deleting an auxiliary which does start with a consonant. An example from the corpus[[10]](#endnote-11) is given in (17) below, where the presumed deleted auxiliary is the 3rd person singular present *mae* [ma].

1. *honno casáu fi, ydy.*

that-one.f hate.nonfin 1s be.3s.pres

‘She hates me, doesn‘t she.’ [davies6-Daniel]

[hypothetical form with a retained aux.: **mae** honno (‘n) casáu fi, ydy]

This speaker, Daniel, is a young (25) male from north-west Wales. If examples such as this become more common in Welsh speech, then it might be a sign that the phonological constraints described above are no longer active, and that *any* auxiliary may in principle be deleted. Thus I would propose that AuxD represents a change which initally involved deleting the phonologically ‘open’ forms of *bod*, like the 2nd person singular present tense *wyt*, but is by now apparently starting to spread to verb forms which are phonologically ‘closed’, like the 3rd singular present tense *mae* noted above. While the change with deletion of *wyt* seems to be nearing completion, changes with other forms of the verb may not yet have reached completion, and are still underway. A future analysis of those forms would allow us to compare the age variation patterns across verb forms, so as to try to identify the ongoing scope of the change.

I now proceed to comparing these findings to the possessive construction analyses. Two analyses were made, one of 1st person plural constructions and another of 3rd person singular constructions. The patterns found for both analyses differed somewhat, but overall we can see that the colloquial possessive type (CC) is more frequent in young people’s speech than older people’s speech for both 1st and 3rd person constructions. The pattern for 1st person plural age data shows that CC is generally more common for younger speakers than older speakers (figure 4), although the difference is not significant, and the increase in CC for younger age groups looks like an S-curve and indicative of diachronic change. We could also perhaps interpret the fact that the older and younger groups produce more CC than the middle age groups do as a U curve, i.e. a kind of age grading (e.g. Chambers 2003; Sankoff and Laberge 1978). whereby middle-aged speakers restrict their use of CC and increase their use of SC and LC. The small number of tokens in each group here may affect the results, however.

In figure 6 we can see that the line for CC frequency in 3rd singular constructions is not strictly-speaking a true S-curve: although the youngest speakers clearly use much more CC than the oldest speakers, the speakers aged 40-49 actually use slightly less CC than the speakers older than them, and so the middle-aged speakers are those least likely to use CC. Nevertheless, the older speakers (above 40) use CC markedly less than the younger speakers, and instead prefer SC or LC. I argue that the difference seen between the oldest and the youngest speakers’ use of CC in both analyses indicates that CC has become more frequent over time, and that this is a change in progress, where CC is becoming more and more common in speech. Indeed, the higher use of CC by the oldest speakers in both the 1st and 3rd person analyses may indicate late adoption/lifespan change, as proposed above for the AuxD analysis, although one might expect that to occur when a change is nearing completion, whereas neither of the increases in CC appears to be near a completed change.

The major difference between the two datasets is that the change (increase in frequency of CC) seems to have started its increase earlier in time for the 1st person plural type than for the 3rd person singular type. CC in the 1st person plural has high frequency even for the 60+ year old speakers, whereas CC in the 3rd person singular has low frequency in age groups older than 39, after which there is a clear jump in frequency of use, which I take to indicate that the change propagated later in time for the 3rd person singular than for the 1st person singular. Perhaps the presence of CC in the 1st person allowed its spread to the 3rd person.

The trend for both constructions is that CC is becoming more common, while SC and LC are becoming less common. If we posit SC or LC as the historical prototype, it is reasonable to interpret these data as showing that CC taking over from SC and LC as the norm (this crossover is more apparent in the 3rd singular data than in the 1st plural data). The logical end point of such a change would be the disappearance of SC/LC from the spoken language. Note that LC is nevertheless present in the speech of speakers of all ages in these data, to a varying extent, and it could be that this possessive type lingers in the spoken language as a result of its use in more formal, literary Welsh, which in turn may lend it a higher prestige.[[11]](#endnote-12)

The contrasting patterns found between the two possessive construction analyses is reflective of the spread of the change in AuxD I proposed above, in which the change began with 2nd person singular *wyt*, and is nearing completion, but is now perhaps spreading beyond its initial phonological constraints to other forms, like the 3rd person singular. With the possessive constructions, I argue that the change in frequency occurred in the 1st person plural before it spread to the 3rd person singular, although future analyses of the other pronominal forms of the possessive constructions would be required to shed more light on the exact nature of that change.

One thing that should be borne in mind when considering an analysis of the whole *Siarad* corpus – as the possessive constructions analysis is – is that the speakers are from very diverse linguistic backgrounds. While the majority are first language Welsh and the majority from north Wales, not all are, and so the analysis is not of one homogeneous group. It may be, for example, that the changes identified via the age variation are also conditioned by dialect. This would be a fruitful future avenue for study of this feature.

What do these results suggest about our theories of age variation and language change in general? The data all support the notion that variation according to age reflects language change, and I have argued that the differences in age variation patterns across the three datasets analysed give us an indicator that similar types of changes, even within the same paradigm, can start in one form before spreading to others. I have also suggested that, in the AuxD analysis at least, there is evidence of older speakers adapting their speech to mirror a community change, and this may be a more common feature of language change than was previously assumed. Phonological constraints, as seen in the AuxD analysis, can limit the extent and nature of a change, but it seems that such constraints are not invulnerable (as seen in example 17). Speakers will, it seems, embrace a change and extend it where the cicumstances allow.

1. **Conclusion**

In this chapter I have presented two studies of grammatical variation in contemporary spoken Welsh. My aim was to show how an analysis of age variation can indicate whether or not change is in progress, and, furthermore, what stage that change might be at. The analysis of auxiliary deletion shows a long-standing change, where the deletion of *wyt* increases in frequency, which I argue is nearing completion, as seen by its high frequency of use among speakers of all ages, albeit that older speakers still currently delete the auxiliary slightly less than younger speakers. The possessive construction analysis reveals interesting patterns of usage which differ between the 1st person plural data and the 3rd person singular data analysed. In fact, there is evidence that the increase in use of the 1st plural colloquial construction started at an earlier point in history than the same increase in the 3rd singular, as evidenced by the different shapes of the lines on figures 5 and 7. It seems reasonable to suggest that the change (increase in CC) began in limited contexts, e.g. in the 1st person plural, and then spread to other inflections. Both of the studies I have presented here give early indicators of the nature of the variation and change featuring these two constructions in Welsh, but future analysis may add weight to the arguments I propose here. Analysing AuxD of other verb forms[[12]](#endnote-13) would also allow us to see to what extent the deletion of *wyt* is typical.

**References:**

Awbery, G.M. (1994) Echo pronouns in a Welsh dialect: a system in crisis? *Bangor Research Papers in Linguistics* 5, 1–29.

Bailey, G., Wikle, T., Tillery, J. and Sand, L. (1991) The apparent time construct. *Language Variation and Change* 3, 241–264.

Boberg, C. (2004) Real and apparent time in language change: Late adoption of changes in Montreal English. *American Speech* 79, 250–269.

Borsley, R. D., Tallerman, M. and Willis, D. (2007) *The syntax of Welsh*. Cambridge University Press, Cambridge.

Chambers, J. K. (2003) *Sociolinguistic theory: Linguistic variation and its social significance* (2nd edition). Blackwell, Cambridge, MA.

Cukor-Avila, P. and Bailey, G. (2013) Real time and apparent time. In: Chambers, J. K., Trudgill, P. and Schilling, N. (Eds.), *The handbook of language variation and change* (2nd edition), Wiley-Blackwell, Malden, MA, 239-62.

Davies, J. (1994) *A History of Wales*. London: Penguin.

Davies, P, (2010) Identifying word-order convergence in the speech of Welsh-English bilinguals. Unpublished PhD dissertation, Bangor University.

Davies, P. and Deuchar, M. (2014) ‘Auxiliary deletion in the informal speech of Welsh-English bilinguals: a change in progress’. *Lingua* 143, 224-41.

Davies, R.J. (2012) The development of the Welsh possessive and its current use in the online informal written domain. Unpublished BA dissertation, Bangor University.

Deuchar, M., Davies, P., Herring, J.R., Parafita Couto, M.C. and Carter, D. (2014) ‘Building bilingual corpora. In: Thomas, E.M. and Mennen, I. (Eds.),*Advances in the Study of Bilingualism*, Multiningual Matters: Bristol, pp. 93-111.

Deuchar, M., Davies, P. and Donnelly, K. (forthcoming) *Building and Using the Siarad Corpus of Spoken Welsh: Bilingual conversations in Welsh and English.* Monograph.

Holmes, J., Bell, A. and Boyce, M. (1991) *Variation and change in New Zealand English: A social dialect investigation.* Report to the Social Sciences Committee of the Foundation for Research, Science and Technology (NZ).

Jones, B. M. (1990). ‘Linguistic causes of change in pronominalization in childrens Welsh.’ *Bulletin of the board of celtic studies* 37, pp 43-70.

Jones, B. M. (2004) The licensing powers of mood and negation in spoken Welsh: Full and contracted forms of the present tense of bod ‘be’. Journal of Celtic Linguistics 8, 87–107.

Jones, M.C. (1998) *Language obsolescence and revitalization: Linguistic change in two sociolinguistically contrasting Welsh communities*. Clarendon Press Oxford.

Jones, M. and Thomas, A. R. (1977) *The Welsh language: Studies in its syntax and semantics*. University of Wales Press for the Schools Council, Cardiff.

Labov, W. (1994) *Principles of linguistic change: Internal factors*. Malden, MA, Wiley-Blackwell.

Labov, W. (2001) *Principles of linguistic change: Social factors*. Malden, MA, Wiley-Blackwell.

MacWhinney, B. (2000) *The CHILDES project: Tools for analyzing talk* (3rd edition). Lawrence Erlbaum Associates, Mahwah, NJ.

Parry-Williams, T.H. (1923) *The English element in Welsh: a study of English loan-words in Welsh*. London: Honourable Society of Cymmrodorion.

Phillips, J. D. (2007) Mae nodweddion hynotaf y Gymraeg ar ddiflannu [translation: The most remarkable features of Welsh are on the verge of disappearing]. *Journal of the Literary Society of Yamaguchi University* 57*,* 261–282.

Roberts, A. E. (1988) Age-related variation in the Welsh dialect of Pwllheli. In: Ball, M.J. (Ed.), *The use of Welsh: a contribution to sociolinguistics*. Multilingual Matters, Clevedon, PA, 104–124.

Sankoff, D. and Laberge, S. (1978) The linguistic market and the statistical explanation of variability. In: Sankoff, D. (Ed.), *Linguistic variation: Models and methods,* New York Academic Press, 339-350.

Thomas, A. R. (1982) Change and decay in language. In: Crystal, D. (Ed.), *Linguistic controversies: Essays in linguistic theory and practice in honour of F. R. Palmer*, Edward Arnold, London, pp. 209–219

Thorne, D. (1996) *Gramadeg Cymraeg*. Gomer Press, Llandysul.

Williams, S. (1980) *A Welsh grammar*. University of Wales Press, Cardiff.

Willis, D. (forthcoming) Cyfieithu iaith y caethweision yn *Uncle Tom’s Cabin* a darluniadau o siaradwyr ail iaith mewn llenyddiaeth Gymraeg [Translating the language of the slaves in *Uncle Tom’s Cabin* and portraits of second language speakers in Welsh literature].

1. In the 2011 UK Census, out of Wales’ population of 3.06m, it was recorded that 1.50m were men (49%) and 1.56m were women (51%). We considered the gender distirbution in *Siarad* to be close enough to this distirbution as to be representative of Wales in general. [↑](#endnote-ref-2)
2. UK qualifications that school students attain if they stay in school until they are 18. [↑](#endnote-ref-3)
3. References in square brackets following examples are to specific files in the Siarad Welsh-English bilingual corpus which we collected and have made available on [www.talkbank.org/BilingBank](http://www.talkbank.org/BilingBank). Transcripts of recorded conversations are referred to by the filename, e.g. davies1, fusser27, and the pseudonym of the participant is then supplied. [↑](#endnote-ref-4)
4. As table 1 shows, the number of tokens per age band is not balanced. There are more tokens for the groups for speakers aged between 20 and 49 than for the younger and the older speakers, and there are very few tokens for the oldest speakers. I acknowledge that analysing more balanced age bands in the future might affect the statistical analysis presented below. [↑](#endnote-ref-5)
5. One such example is *ei gilydd* (etc.) ‘each other’, which is a grammaticalization of (now archaic) *cilydd* ‘companion’, i.e. formerly *ei gilydd* ‘his companion’, and where using a pronoun, e.g. *\*ei gilydd o*, is ungrammatical. [↑](#endnote-ref-6)
6. An issue that arose in the analysis was categoricality, in particular with the frequent CC token *tŷ ni* ‘our house’, which was found in 19 tokens in the corpus but which only ever appeared as a CC construction, never SC (*ein tŷ ni*) or LC (*ein tŷ*). It could be that *tŷ ni* has become conventionalized as a set phrase which may mean something like ‘(our) home’. [↑](#endnote-ref-7)
7. Siarad uses pseudonyms for people named within the conversations as well as for the participants themselves. [↑](#endnote-ref-8)
8. Perhaps this could be more strictly defined as verb which has a stressed syllable with an initial consonant, which explains non-deletion of bisyllabic verbs like *ydw*. [↑](#endnote-ref-9)
9. Again one must allow for dialectal differences, since the northern/southern distinction is a crude and perhaps overly-generalistic one, and indeed there will also be individual speaker differences, such as southern L2 speakers who might have a more standard pronunciation due to the influence of 'school Welsh’ (e.g. 1st plural *dyn* rather than *ŷn*). [↑](#endnote-ref-10)
10. This is one example I found in *Siarad* of this kind of deletion. Another example involves a proper noun subject; this is given as example (6) in Davies & Deuchar (2014). There are likely to be other similar instances in the corpus. [↑](#endnote-ref-11)
11. Jones (1998) found that school-aged children in Rhosllanerchrugog tended to use standard or literary grammatical forms of certain constructions, rather than the dialectal forms used by older Welsh speakers in the community (such as preferring the more formal/neutral nominal plural suffix <-au> [aɨ] to the dialectal <-e> [e]), presumably because of the influence of ‘school Welsh’ as perhaps their primary input source for Welsh. The reasons for the persistence of the LC possessive in even the younger generations’ speech may be similarly-motivated, whereby speakers retain forms which are common in written or formal Welsh even though they are not the most common constructions found in speech (and, therefore, in the input). [↑](#endnote-ref-12)
12. And indeed verbs other than *bod* ‘be’, since AuxD appears to be largely confined to forms of *bod*, and it would be of interest to identify why. Perhaps it is due largely to the high frequency of *bod* as an auxiliary. [↑](#endnote-ref-13)