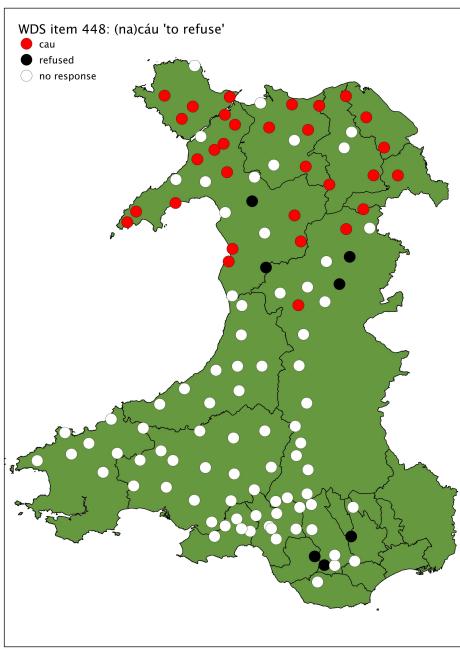


1 CAU AS A NEGATIVE MODAL VERB: BACKGROUND

Northern use of *cau* (< *nacáu* ‘refuse’) as a negative modal to convey a property of being predisposed not to do something:



Map 1. Dialect distribution (red) of *cau* ‘won’t’ according to the *Welsh Dialect Survey* (speakers born in the 1920s).

- (1) Mae 'r drws (yn) cau agor.
 be.PRES.3SG the door (PROG) CAU open.INF
 ‘The door won’t open.’ / ‘Wnaiff y drws ddim agor.’

This use is not found in the eighteenth and nineteenth centuries. In the eighteenth century, we have full phonological forms:

- (2) 'Roedd y Lleider nacau ildio
 be.IMPF.3SG the thief refuse.INF yield.INF
 ‘The thief refused to give way...’ (Ellis Roberts (d. 1789), *Gras a natur* 33.2, 1769)

In the late nineteenth century, phonological reduction is attested in northern varieties (cf. the dialect distribution from the *Welsh Dialect Survey* in Map 1), but the subject retains an agentive, volitional reading:

- (3) Beth os bydd y cathod yn 'cau dwad!
 what if be.FUT.3S the cats PROG CAU come.INF
 ‘What if the cats refuse to/won’t come!’ (Daniel Owen (1836–95), *Hunangofiant Rhys Lewis* 278, 1885)

- (4) a chan ofni y baswn i 'n 'cau mynd wedi 'r cwbl
 and with fear.INF PRTbe.COND.1SG I PROG CAU go.INF after the all
 ‘and fearing that I’d refuse to go in after all...’ (Beriah Gwynfe Evans (1848–1927), *Dafydd Dafis* [33], 1898)

Today, in some varieties, we have at least one semantic and at least one syntactic innovation beyond the nineteenth-century system. First of these is a semantic extension to non-volitional, non-agentive subjects, so that *cau* expresses a property ('being predisposed not to' rather than an event 'refuse'):

- (5) Rhoi 'r adenyyd mewn dŵr berwedig eto
 put.INF the wings in water boiling again
 os yw 'r ewinedd yn cau dod yn rhydd.
 if be.PRES.3SG the nails PROG CAU come.INF PRED free
 ‘Put the wings in boiling water again if the thorns won’t come free.’
 (<http://www.cimwch.com/bwyd/bwyd.htm>)

Second is a syntactic extension of negative concord to *cau*. Negative elements typically trigger negative concord in verbal forms in Welsh, hence the addition of *ddim* ‘not’ to an affirmative sentence in (6) triggers a shift in the form of the auxiliary *mae* ‘is’ to a negative-concord form *dydi* in (7),

likewise with the n-word *neb* ‘no one’ in (8) (these items ‘require a negative context’, cf. Borsley and Jones 2005).

- (6) Mae Aled yn helpu rhywun.
be.PRES.3SG Aled PROG help.INF someone
‘Aled is helping someone.’
- (7) Dydi Aled ddim yn helpu neb.
NEG.be.PRES.3SG Aled NEG PROG help.INF no.one
‘Aled is helping no one. / Aled isn’t helping anyone.’
- (8) Dydi neb yn helpu Aled.
NEG.be.PRES.3SG no.one PROG help.INF Aled
‘No one is helping Aled.’

While, traditionally, *cau* is an affirmative verb and does not trigger negative concord, some speakers now allow it, hence (9) beside its more traditional equivalent in (10).

- (9) **Tydi** ffon fi cau gweithio ...
NEG.be.PRES.3SG phone me CAU work.INF
‘My phone won’t work ...’ (<http://twitter.com/#!/SionGO/statuses/73115057822773248>)
(speaker from Penygroes, 4 miles south of Caernarfon)
- (10) **Mae** ffon fi cau gweithio ...
be.PRES.3SG phone me CAU work.INF
‘My phone won’t work ...’

A related innovation is the extention of *cau* to clauses with an n-word, as in (11), where *neb* ‘no one’ plausible replaces *pawb* ‘everyone’ in the diachronic development:

- (11) Oddna **neb** **cau** **dod** efo fi!
was.3SG.there no.one CAU come.INF with me
‘No one would come with me!’ (<http://www.bebo.com/Profile.jsp?MemberId=8930611124>)
(speaker from Pentreuchaf, north of Pwllheli)

As a result of this development, *cau* enters the negative-concord system, not only by triggering negative concord on other elements (as was the case with *mae* > *tydi* above), but also in providing the negative context that satisfies the requirements of another element. N-words such as *neb* ‘no one’ and *dim byd* ‘nothing’ require licensing, in many configurations (see Borsley & Jones 2005), by another negative element, hence the ungrammaticality of (12), where the right kind of licensing is not present, as opposed to (13), where it is.

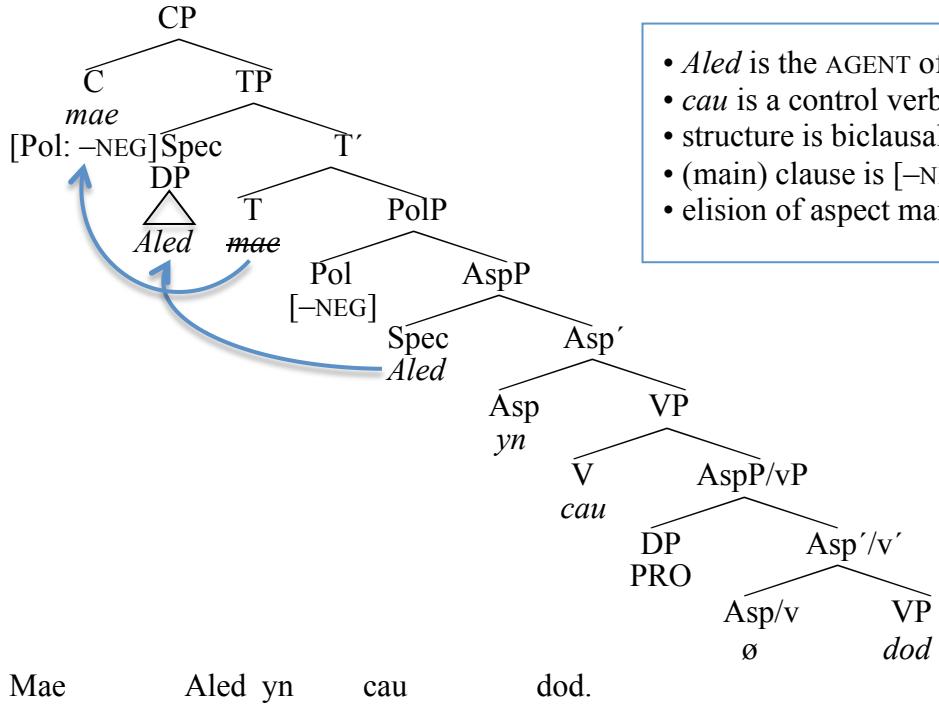
- (12) *(D)oedden nhw ’n gwneud dim byd.
(NEG.)be.IMPF.3PL they PROG do.INF nothing
‘They weren’t doing anything.’
- (13) (D)oedden nhw **ddim** yn gwneud dim byd.
(NEG.)be.IMPF.3PL they NEG PROG do.INF nothing
‘They weren’t doing anything.’

Cau itself for some speakers can play the role of licensor of an n-word, as the grammaticalility of (14), in the relevant varieties, demonstrates:

- (14) oedden nhw **cau** neud dim byd
 be.IMPF.3PL they CAU do.INF nothing
 'They wouldn't do anything.' (corpus Siarad, stammers8)

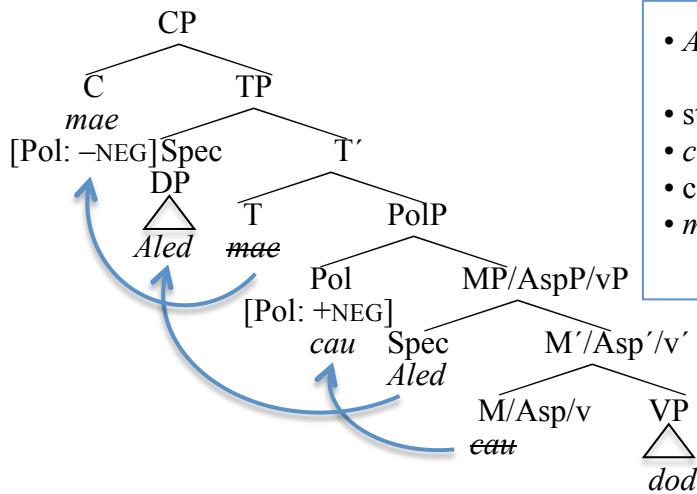
These innovations demonstrate two major changes in the syntax of *cau*: first, that *cau* no longer imposes an agentive requirement on its subject; and secondly, that *cau* has become part of the negative system proper. The diachronic development can be summarized as a shift from the structure in (15) to that in (16).

(15)



- *Aled* is the AGENT of *cau*
- *cau* is a control verb
- structure is biclausal
- (main) clause is [-NEG]
- elision of aspect marker *yn* in fast speech

(16)



- *Aled* is an argument of the lexical verb (theme of *dod* 'come' here)
- structure is raising (subject raises)
- *cau* is an auxiliary, realizing Pol+Asp
- clause is [+NEG]
- *mae* is inexplicably [-NEG], hence new generation innovates the [+NEG] form *tydi*

In this shift, *cau* ceases to impose the requirement that its subject is volitional/agentive, and therefore goes from being a control verb to being a raising verb (loss of independent argument structure), a change that is well attested in other cases of the grammaticalization of modals

(cf. English *will*) (Kuteva 2001, Bybee, Perkins & Pagliuca 1994). In undergoing this change, it ceases to have argument structure independent of the verbal phrase that forms its complement. Like other shifts of this kind, this change eliminate syntactic structure, implying a Minimize Structure preference in acquisition (cf. van Gelderen 2004 etc.).

Furthermore, *cau* enters the negative system. In (15), it acts as a purely lexical verb, and has no grammatical features, in particular no feature for negation. In the innovative analysis in (16), it bears a negative feature [+NEG]. Initially acquirers note that *cau* does not trigger negative concord, even though other [+NEG] items (such as the sentential negator *ddim* ‘not’) do. They adapt their output to match the observed production of others in an ad hoc way. In (16), we would expect the unvalued Pol feature on C to be valued [Pol: +NEG] (from *cau*). For a time, speakers override this, either converting the [Pol: +NEG] feature on C to [Pol:–NEG] in the context of a following *cau*, or converting the form *tydi* to *mae* in the context of a following *cau*. Observed variation arises once this override is eliminated by some speakers. Where this override is retained, we observed absence of negative concord, while the presence of negative concord in a dialect indicates that the override has been lost. This conceptualizes the innovation of negative concord as a form of extension.

Finally, we must ask what motivates speakers to reanalyse a lexical verb as part of the negative system. Welsh has a number of forms, both grammatical and lexical, which are in effect portmanteau forms realizing both negation and some other semantic component. Most obviously, we have the negative perfect particle *heb*, which functions as the negative of the ordinary affirmative perfect particle *wedi*. While both are historically prepositions (*heb* < ‘without’ and *wedi* < ‘after’), they today function as part of the aspectual system proper in opposition to clearly aspectual particles such as progressive *yn*. When functioning as the negative of *wedi*, *heb*, just like *cau*, participates in negative concord for some speakers, as in (18), but not for others, as in (19). As with *cau*, negative concord here is a historical innovation.

- (17) Mae Ifan wedi gorffen.
be.PRES.3SG Ifan PERF finish.INF
'Ifan has finished.'
- (18) Dyw Ifan heb orffen.
NEG.be.PRES.3SG Ifan NEG.PERF finish.INF
'Ifan hasn't finished.'
- (19) Mae Ifan heb orffen.
be.PRES.3SG Ifan NEG.PERF finish.INF
'Ifan hasn't finished.'

Since *heb* expresses both aspect and negation, a natural analysis treats it as the spellout of an Asp head that has raised to Neg. The existence of one such head evidently predisposes acquirers to innovative another head of the same type.

Less close parallels are offered by the existence of various negative lexical modal verbs. Examples include *methu*, *ffaelu* and *pallu* ‘be unable’, which act as the negative of *medru* ‘be able’, the choice determined largely by dialect.

2 CAU IN THE SAWD QUESTIONNAIRE

In the *Syntactic Atlas of Welsh Dialects* fieldwork, speakers are presented with sentences and asked to repeat them so as to express the same meaning in as natural a way as possible. Test sentences contain syntactic variants from different dialects, often in impossible combinations. Each test sentence is

preceded by another sentence intended to provide a plausible context in which the second could be used. Five test sentences include *cau*. Three of them present speakers with different options for negative concord: one without negative concord, in (20); one with weak negative concord, in (21); and one with strong negative concord, in (22).

- (20) Well i ni ffonio'r garej ...

Mae dy gar chdi 'n cau cychwyn.
be.PRES.3SG 2SG car you PROG CAU start.INF
'(We'd better phone the garage.) Your car won't start.' (item 16)

- (21) Alla i ddim eu ffonio nhw ...

Dydy dy ffôn di cau gweithio.
NEG.be.PRES.3SG 2SG phone you CAU work.INF
'(I can't phone them.) Your phone won't work.' (item 17)

- (22) Bydd rhaid ni fynd at ffrindiau i wyllo'r ffilm ...

Dydy ein teledu ni **ddim** yn **cau** gweithio.
NEG.be.PRES.3SG 1PL television we NEG PROG CAU work.INF
'(We'll have to go to friends to watch the film.) Our TV won't work.' (item 41)

One question tests use of *cau* accompanying an n-word/indefinite pronoun like *neb* 'no one':

- (23) Dwi'n gorfod aros gartre heno ...

Does neb yn cau dod allan efo fi.
NEG.be.PRES.3SG no.one PROG CAU come.INF out with me
'(I've got to stay home tonight.) No one will come out with me.' (item 42)

The last question tests for the grammaticality of ellipsis after *cau*:

- (24) Ond tydi o dal cau.

but NEG.be.PRES.3SG he still CAU
'But he still won't.' (item 34)

- (25) mae na rywun wedi sti

be.PRES.3SG there someone PERF y'know
'Someone has, y'know. / There's someone who has, y'know.' (corpus Siarad, fusser27)

3 RESULTS

Figures 1 and 2 show the distribution of negative concord, extracted from the patterns of answers given across all five items, divided by age between speakers born before 1964 and those born after. In the older age group, negative concord speakers are in a minority, and are scattered intermittently across much of north Wales. A number of the older speakers produce both negative-concord and non-negative-concord patterns in their answers. The younger speakers, in Figure 2, show a greater overall propensity to use negative concord with *cau*. The distribution is also much less diffuse, with a recognizable dialect area for this feature. The diffuse distribution in the older age group suggests multiple actuation of the innovation. This is a natural consequence of the analysis proposed above, since, under that analysis, the innovation of negative concord with *cau* is the loss of a rule, hence something which can be innovated at multiple locations.

Figures 3 and 4 show the distribution of *cau* with the n-word *neb* 'no one' in the sentence in (23). Again acceptance of co-occurrence is higher among the younger group, among whom greater dialect coherence is also evident.

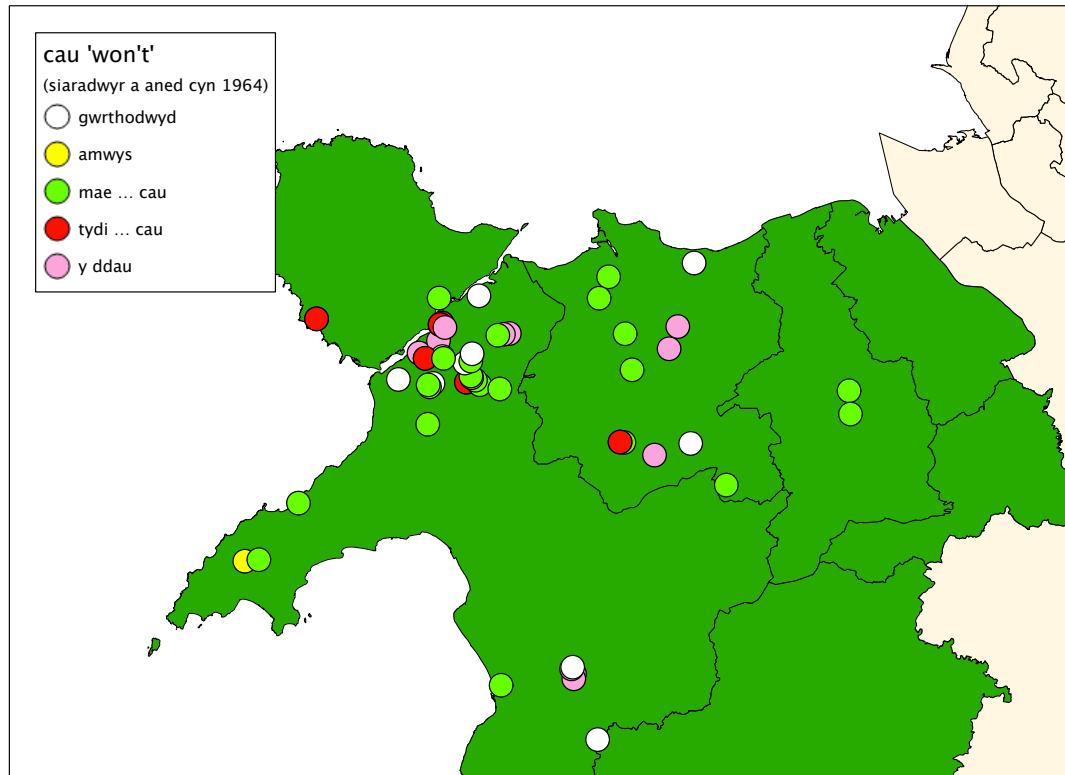


Figure 1. Negative concord with *cau* (speakers born before 1964) (red = concord; green = no concord; pink = both concord and non-concord; yellow = *cau*, ambiguous for concord; white = *cau* rejected)

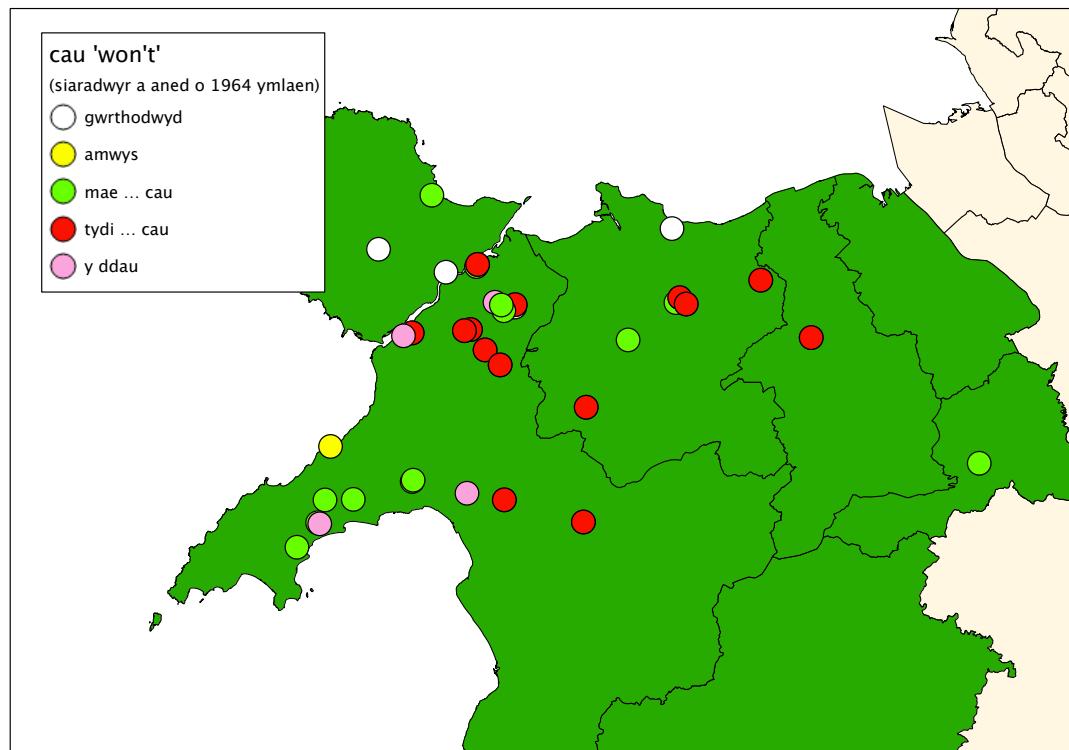


Figure 2. Negative concord with *cau* (speakers born 1964 on) (red = concord; green = no concord; pink = both concord and non-concord; yellow = *cau*, ambiguous for concord; white = *cau* rejected)

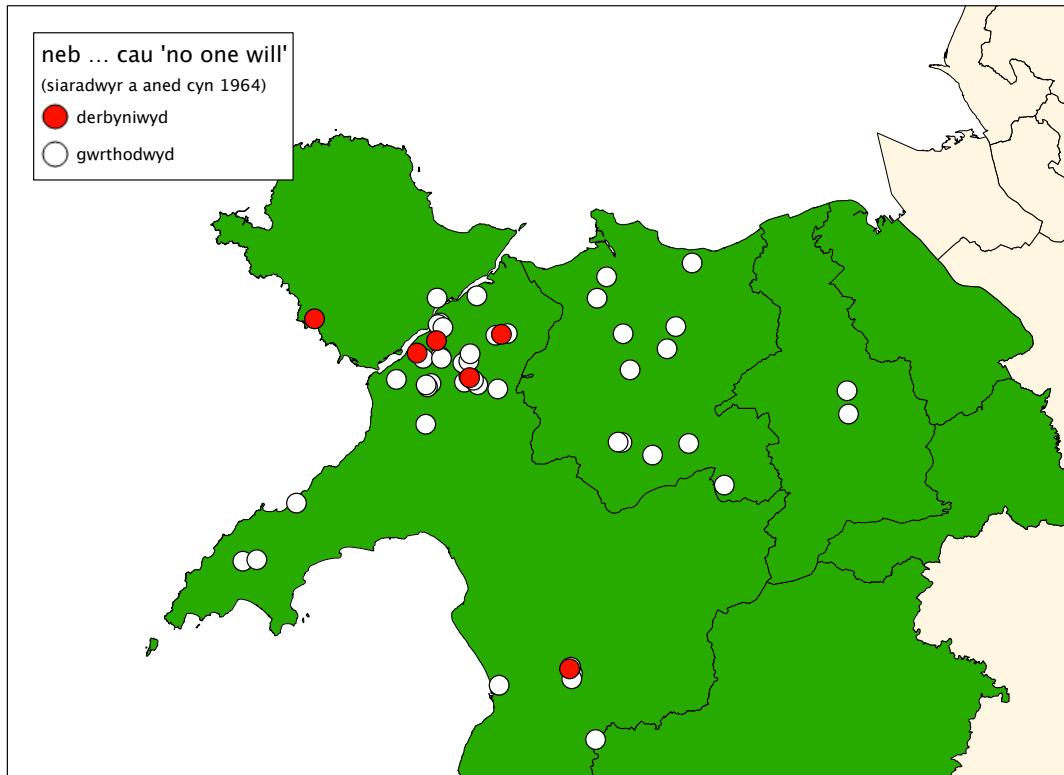


Figure 3. *Cau* with negative indefinites (speakers born before 1964) (red = *cau* permitted with a negative indefinite; white = *cau* rejected with a negative indefinite).

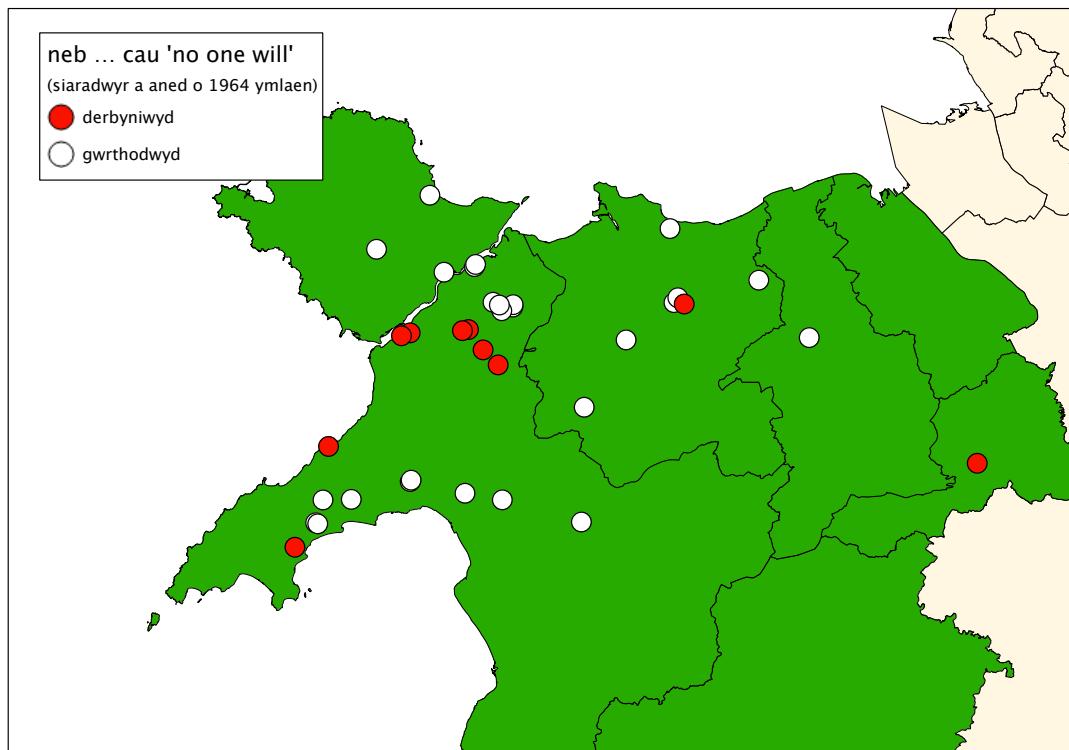


Figure 4. *Cau* with negative indefinites (speakers born 1964 on) (red = *cau* permitted with a negative indefinite; white = *cau* rejected with a negative indefinite).

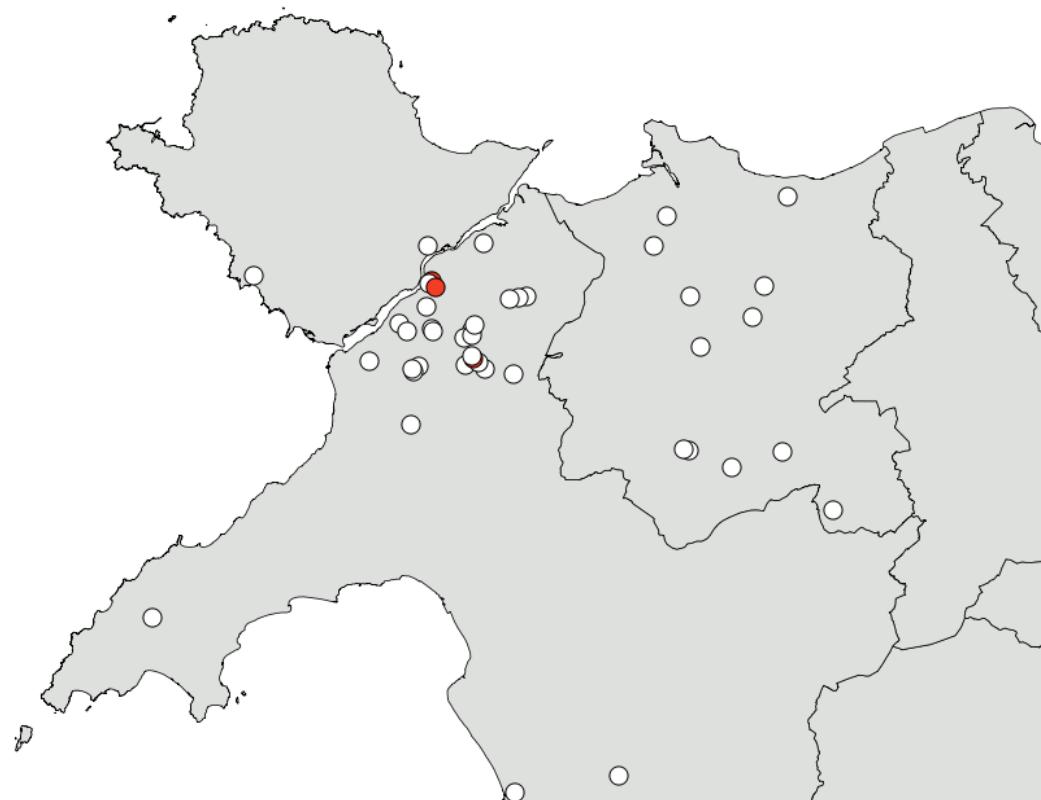


Figure 5. *Cau* stranding (speakers born before 1964) (red = *cau* stranding permitted; white = *cau* stranding rejected).

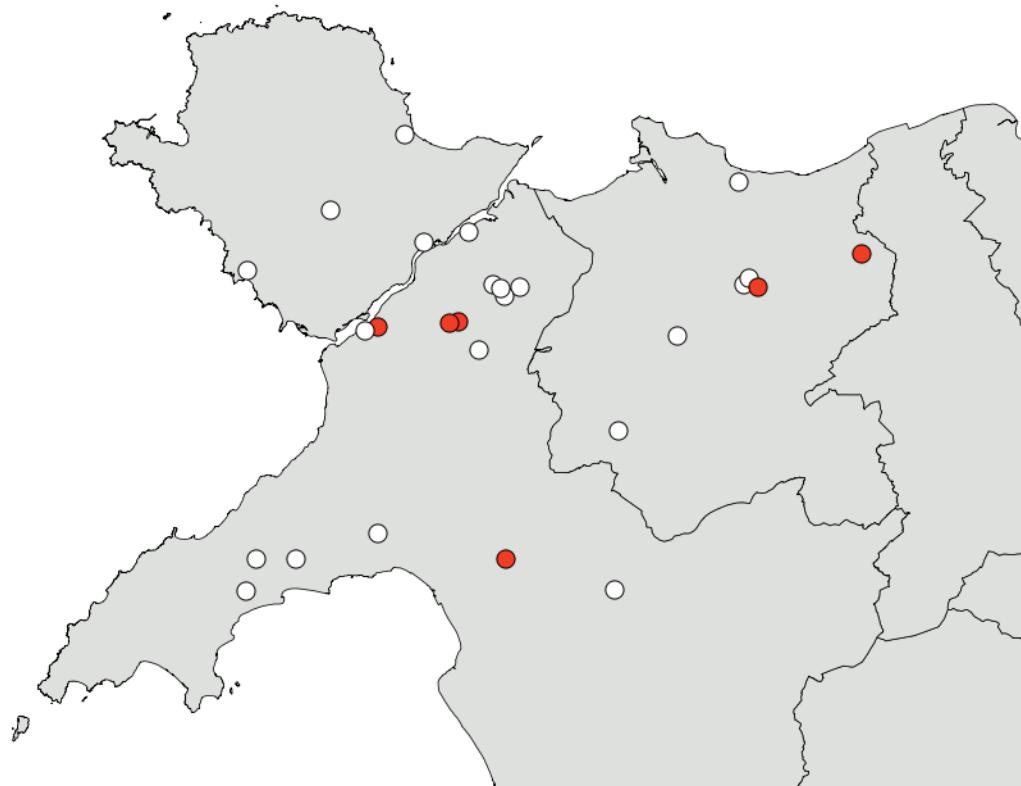


Figure 6. *Cau* stranding (speakers born from 1964 onwards) (red = *cau* stranding permitted; white = *cau* stranding rejected).

No map is shown for strong negative concord, since this was accepted only by one speaker (a speaker in his twenties from Caernarfon). This speaker did, however, use it both in sentence (22) = (26), where it was offered by the fieldworker, and added it to sentence (20) = (27), where it was not:

- (26) Di teledu ni ddim yn cau gweithio.
 NEG.be.PRES.3SG TV us NEG PROG CAU work.INF
 'Our TV won't work.'
- (27) Di 'r car ddim cau cychwyn.
 NEG.be.PRES.3SG the car NEG CAU start.INF
 'The car won't start.'

4 DISTRIBUTION OF GRAMMARS

If we use speakers' responses to establish a grammatical system for *cau* for each of them, we find the following distribution:

- 0: no *cau* (19 speakers)
- 1: *cau* only used without negative concord (39 speakers)
- 2: *cau* with optional weak negative concord (i.e. both sentences with and without negative concord repeated as such) (9 speakers)
- 3: *cau* with weak neg. concord (i.e. negative concord is added to sentence without it) (10 speakers)
- 4: *cau* with weak neg. concord and concord with negative indefinites but no stranding (9 speakers)
- 5: *cau* with weak neg. concord and stranding but no concord with negative indefinites (5 speakers)
- 6: *cau* with weak negative concord, stranding and concord with negative indefinites (4 speakers)
- 7: *cau* with strong negative concord, stranding and concord with negative indefinites (1 speaker)

A number of the innovations are related hierarchically with one another, such that the presence of an innovation implies the presence of all prior innovations in a speaker's grammar:

- (28) no neg. concord > weak neg. concord > concord with indefs > strong neg. concord
 (39 speakers) > (19 speakers) (13 speakers) (1 speaker)
 (both: 9 speakers)

There is no implicational relation among the other innovations:

- (29) negative concord with indefinites > stranding
 stranding > negative concord with indefinites

This suggests that the various manifestations of negative concord form a single structured innovation, while the development of stranding in this environment is an independent innovation (linked ultimately to the innovation of stranding of aspectual particle elsewhere in the system).

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