

Specifier–head reanalyses in the complementizer domain:
evidence from Welsh

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ABSTRACT

This article considers specifier-to-head reanalyses within the complementizer domain. Such reanalyses are well attested. This article focuses on one such change, the emergence of affirmative main-clause complementizers in Welsh (present-day Welsh *mi* and *fe*). It is demonstrated that these emerged from earlier preverbal subject pronouns that satisfied a V2-constraint in [Spec, CP]. The reanalysis proceeded via two stages, one in which the expletive pronoun *ef(e)*, *efo* was reanalysed as an affirmative main-clause complementizer, the second in which all other pronouns were reanalysed as affirmative main-clause complementizers that showed agreement with a pronominal subject. This agreement was lost between the eighteenth and twentieth centuries, with different results according to dialect. These changes are considered in the context of other cases where new agreeing complementizers have been created in varieties of Dutch and German, and from the general perspective of formal approaches to grammaticalization and unidirectionality of change.

1. INTRODUCTION

Complementizers are known to emerge historically from a number of sources.¹ A provisional classification in structural terms of the possible developments that lead up to the emergence of a new complementizer might involve three scenarios:

- (i) reanalysis of main-clause phrasal elements as complementizer heads;
- (ii) reanalysis of main-clause heads (e.g. verbs, prepositions) as complementizer heads;
- (iii) reanalysis of embedded phrases (e.g. specifiers of CP) as complementizer heads.

The first type can be illustrated by perhaps the most famous case of complementizers arising through reanalysis of former full phrasal elements, the development of general embedded finite-clause complementizers from demonstratives in various Germanic languages, for instance, English *that*, German *dass*. These plausibly emerged from reanalysis of two loosely connected (main) clauses, of the type shown schematically in (1).

- (1) [CP I know that] – [CP He is ill] > [CP I know [CP that he is ill]]

Another example of reanalysis of a main-clause noun phrase as a complementizer is English *while* < *ðe hwile ðe* ‘the while that’. The phrasal element in the main clause need not be nominal: prepositional phrases originally part of a main clause are also a frequent source of complementizer heads (Harris and Campbell 1995: 287–9), for instance, French *parce que* ‘because’ < *par ce que* ‘by this that’, Bulgarian *zaštoto* ‘because’ < *za što-to* ‘for what’.

Complementizers may also arise historically from reanalysis of former head elements (type (ii)). The best known are reanalyses of verbal heads, such as Ewe *bé* ‘that’ < ‘say’ (Heine and Kuteva 2002: 263) (with parallel development in many other African languages), Russian *xotja* ‘although’ < gerund of Old East Slavonic *xotěti* ‘want’ and Twi *sɛ* ‘that’ < ‘be like’ (Heine and Kuteva 2002: 257). Ongoing reanalyses of this type are perhaps also underway with English *s’pose* ‘if’ < *suppose* and *say* ‘if’ < verb *say*.

Although the first of these groups involves reanalysis of phrases as heads, none directly involves the reanalysis of an element in a specifier position of a phrase as the head of that phrase. Nevertheless, such reanalyses (type (iii)) are another common source of complementizers. In Georgian, for instance, the complementizer *raytamca* in (2) derives from an interrogative *wh* phrase *ray*.

- (2) da ara unda, raytamca icna vin
and NEG want.PRES.3SG that know.PRES.3SG someone
 ‘and he did not want that anyone know’ (Georgian) (Harris and Campbell 1995: 298)

Complementizers expressing comparison also sometimes derive from *wh* phrases, for instance, Russian *čem* ‘than’ < instrumental of *čto* ‘what’, Bulgarian *otkolkoto* ‘than’ < ‘than how much’ and colloquial German *wie* ‘than’ < ‘how’. Even in English the *wh* phrase *how* has been partially reanalysed as a general subordinating complementizer head, and hence used in (non-*wh*) complement clauses to verbs of saying and knowing. In the examples given in (3) and (4), *how* does not express an operator-variable interpretation as ‘regular’ *how* does; that is, (4a) does not mean ‘Dwyer told the players in what way (x) he wanted to win the series (in that way (x))’, but rather means something like ‘Dwyer told the players that he wanted to win the series’.

- (3) Bob Cratchit told them how he had a situation in his eye for Master Peter.
 (Charles Dickens, *Christmas Carol* iii, 1844, *OED*)
- (4) a. Dwyer told the players how he wanted to win the two-match series against Scotland and how he not only wanted to reclaim the Bledisloe Cup from the All Blacks but complete Australia’s first ever 3–0 series whitewash.
 (*British National Corpus*, CB2 1468)
- b. I explained quickly about Sal’s hospitalization and how we wanted someone to keep an eye, or an ear, open for Frank. (*British National Corpus*, HWL 36)

In these cases then, *how* is not a *wh* element, but rather a complementizer, and this is presumably reflected structurally in the syntax of English: *how*, formerly only a *wh* phrase, has split into two items, the former *wh*-phrase, and, innovatively, a declarative complementizer (cf. Huddleston and Pullum 2002: 954).

The same is true of Breton *penaos* ‘how’, now used also as a complementizer in an ordinary complement clause. This is illustrated for the Vannes (Gwenedeg) dialect in (5) (cf. also Favereau 1997: 126):

- (5) Laret em es penaus bout ér léh ketan ne
say.PP have.PRES.1SG how/that be.INF in.the place first NEG
vezé ket dalhmat bourrus.
be.PAST.HAB.3SG NEG always funny
 ‘I said that/how to be the best was not always funny.’ (Schapansky 2000: 70)

It has also been argued that the English relative marker *that* is the result of the reanalysis that turned it from a specifier of CP to a head (Van Gelderen 2004a: 81–7, 2004b).

It is this last type, involving a specifier-to-head reanalysis within CP, that will be the focus of this article. It will concentrate on the phenomenon of agreeing main-clause complementizers in Welsh. The verb in modern Welsh, a VSO language, may be preceded in a main clause by a particle, typically either *mi* or *fe*:

- (6) *Mi / fe welodd Dafydd y gêm.*
PRT PRT see.PAST.3SG Dafydd the game
 ‘Dafydd saw the game.’
- (7) *Mi / fe welais i ’r gêm.*
PRT PRT see.PAST.1SG I the game
 ‘I saw the game.’

The particles encode affirmative polarity and are not found in negative clauses or questions. They are limited to main clauses and seem to alternate with corresponding subordinating complementizers in embedded clauses. Hence they are generally analysed as affirmative main-clause complementizers, which is how they will be treated here. Historically, the particle *mi* derives from a 1SG subject pronoun, and the particle *fe* derives from a masculine 3SG subject pronoun. Although they were once restricted to occurring with subjects of the historically expected type, in modern Welsh there is no agreement between the complementizer and the verb or subject: either complementizer may be used with any subject. Hence, in (6), *mi* occurs with a 3SG verb and subject, and, in (7), *fe* occurs with a 1SG verb and subject. The choice between them is determined by complex dialectal and stylistic factors.

This article will be concerned with the historical development of these particles. Their emergence will be viewed as two particular instances of reanalysis of specifiers as heads. Two stages of the emergence can be documented, both of which involve the reanalysis of a pronoun as a complementizer, more specifically a DP in [Spec, CP] as C. Section 2 outlines relevant background features of Middle Welsh syntax, notably the verb-second system in main clauses and the complex pronominal system. Section 3 focuses on the emergence, and, to a lesser extent, the subsequent attrition, of a system of agreeing complementizers in Welsh. Section 4 puts the Welsh developments into theoretical and crosslinguistic focus, first by looking at the specifier-to-head reanalysis that they instantiate within a formal theory of grammaticalization, and secondly by comparing the Welsh developments with the emergence of complementizer agreement in a number of West Germanic varieties.

2. PRONOMINAL SUBJECTS IN MIDDLE WELSH

2.1. The Middle Welsh verb-second rule

Although Modern Welsh is a VSO language, Middle Welsh (1100–1400) operated a verb-second (V2) system in main clauses in which the canonical affirmative word order involves some phrase in initial position, followed by a preverbal particle, followed by the verb. Underlying the V2 system is a VSO word-order rule manifested in embedded clauses. The form of the particle is determined by the nature of the initial phrase. With a subject or object in initial position, the particle takes the form *a*:

- (8) [Riuedi mawr o sswydwy] *a* gyuodassant y uynyd...
numbers large of officials PRT rise.PAST.3PL up
 ‘Large numbers of officials got up...’ (PKM 16.18–19)
- (9) *Ac* [ystryw] *a* wnaeth y Gwydyl.
And trick PRT make.PAST.3SG the Irish
 ‘And the Irish played a trick.’ (PKM 44.11)

The particle *a* triggers soft mutation, a morphosyntactic alternation on the initial segment of the following word, namely the verb. In (8), we find *gyuodassant*, the soft mutated form of *kyuodassant* ‘arose’, and, in (9), *wnaeth*, the soft mutated form of *gwnaeth* ‘made’.

With an adverbial phrase in initial position, it takes the form $y(d)$, with no mutation effect:

- (10) [Yn Harlech] *y* bydwch seith mlyned ar ginyaw...
In Harlech PRT be.FUT.2PL seven years at dinner
 ‘In Harlech you will be at dinner for seven years...’ (PKM 45.2–3)

As in other V2 systems, the choice of element in initial position is determined by information structure: the preverbal phrasal element is generally a topic element familiar from previous discourse. In accordance with previous work on V2 in Celtic (Schafer 1994, 1995, Tallerman 1996, Willis 1998) and in other (mostly Germanic and medieval Romance) languages, we can assume that V2 involves the requirement that some topic phrase moves to [Spec, CP] with the verbal head moving to adjoin to C.² On these assumptions, the structure of (8) is as follows:

- (11) [CP [Spec [DP Riuedi mawr o sswydwyr]]_{top} [C *a-gyuodassant*_v] [TP *t*_{top} *t*_v [VP *t*_{top} *t*_v *y uynyd...*]]]

The structure in (11) assumes that the particles are complementizer heads to which the verb right-adjoins.³ In this case, the variation in the form of the complementizer represents a kind of topic agreement. In terms of an Agree-based minimalist system (Chomsky 2000, 2001, 2004), main clause C in Middle Welsh bears an unvalued Topic feature with a movement diacritic (EPP-feature). The Topic feature seeks out a topic element within the clause and agrees with it. In doing so, C’s Topic feature is valued either as direct (for subject or object fronting) or oblique (for adverbs, prepositional phrases etc.).⁴ The EPP-feature triggers movement of that element to [Spec, CP] at the same time. The particles are then realizations of C [Topic: direct] (as *a*) and C [Topic: oblique] (as $y(d)$). A possible lexical entry for Middle Welsh C is given in (12).

- (12) C
 [uTop: ____] (EPP)
 [Pol: affirmative]
 [Force: declarative]

This analysis follows the spirit of Willis (1998: 50–101) in terms of the structure posited, but motivates movement using an Agree-based feature system, driven by the Topic feature of C.

This system is complicated somewhat by the fact that adverbial phrases in preverbal position can be freely ignored for the purposes of determining V2, thereby sometimes apparently leaving the verb in third or even later position. These non-counting adverbial phrases may precede or follow the topic, although with slightly different information-structure properties. These complications need not concern us here; for details, see Willis (1998: 58–78).⁵

2.2. Middle Welsh pronouns

Middle Welsh had a complex pronominal system encoding focus and topic by means of three series of personal pronouns, simple, conjunctive and reduplicated. Forms of pronouns also varied according to syntactic position, with different forms appearing in strong (independent) syntactic positions and in weak (enclitic) syntactic positions. The distinction is clearest in 1/2SG, since elsewhere there is extensive homonymy between the dependent and independent forms that obscures the distinction, which presumably nevertheless existed in terms of phonological stress. Traditionally, five series of pronouns are distinguished in subject

pronouns (*minheu* etc.) can be treated as having the same status as the independent simple pronouns (*mi* etc.).

Given that the conjunctive series behaves like the simple series, we can collapse the five types into three from a purely syntactic point of view: reduplicated (*miui* etc.), non-affixed (*mi* etc. plus *minheu* etc.) and affixed (*i* etc. plus *inheu* etc.). The distinction between them corresponds broadly to some kind of notion of syntactic ‘strength’, with reduplicated pronouns being syntactically the strongest, and affixed pronouns syntactically the weakest.

It is tempting to try to analyse the differences in terms of the tripartite distinction between strong pronouns, weak pronouns and clitic pronouns proposed by Cardinaletti and Starke (Cardinaletti and Starke 1999). They propose a number of differences found crosslinguistically between the three series that they propose. For current purposes, the most relevant are the following:

- (i) strong and weak pronouns have the distribution of full lexical noun phrases (maximal projections) and occur in argument positions, whereas clitic pronouns have a deficient syntactic distribution;
- (ii) strong pronouns may be coordinated, whereas deficient (weak and clitic) pronouns may not;
- (iii) strong pronouns can be modified by adverbs that modify the entire noun phrase;
- (iv) strong pronouns can occur in ‘peripheral’ positions (for instance, stand alone);
- (v) strong pronouns may not act as expletive subjects.

Let us now apply these criteria in turn to the Middle Welsh data.

The distribution of the series can be tested with respect to the V2-constraint. As we have seen, preverbal subjects in the V2-topic position in Middle Welsh may be simple, as in (13), or reduplicated, as in (15). Affixed pronouns are never found as preverbal subjects. This suggests that non-affixed and reduplicated pronouns are phrases (DPs) and count for the V2 constraint, whereas affixed pronouns are heads, and cannot therefore count as a phrase for the fulfilment of the V2 constraint.

Consider next coordination. In Middle Welsh, all three series may be conjoined. However, they have rather different properties with respect to agreement. The reduplicated and non-affixed series may appear as subjects only in preverbal position, and like other preverbal subjects, trigger full agreement on the verb. Agreement with a conjoined preverbal subject is determined by the conjoined value. Examples of the reduplicated and non-affixed pronouns in conjoined phrases in preverbal subject position are given in (16) and (17) respectively.⁸ Note that, in all cases, the verb agrees with the conjoined value. For instance, in (16)a., the verb is 1PL, the conjoined value of 2SG *tydi* and 1SG *minneu*.

- (16) a. Arglwyd,... **tydi** **a** **minneu** a dilyem y
lord 2SG.REDUP and 1SG.IND.CONJ PRT *should.PRES.1PL* 3MS.GEN
 anrydedu ef...
honour.INF 3M.SG.AFF.SIM
 ‘“Lord, ... you and I should honour him...”’ (YSG 220–1)
- b. ...**tydi** **a** **'r gwyrda** **o** **'r blaen** a 'm dysgassawch
2SG.REDUP and the gentlemen of the front PRT 1SG.ACC teach.PAST.2PL
 yn gymeint...
PRED so.much
 ‘...you and the gentlemen before taught me so much...’ (YSG 2850–2)
- (17) a. ...**ef** **a** **Hwel** y **vrawt** a aethant attaw.
3M.SG.IND.SIM and Hywel 3M.SG.GEN brother PRT go.PAST.3PL to.3M.SG
 ‘...he and Hywel his brother went to him.’

(BTy₂ 82, reading of manuscripts *M*, *R* and *T*)

- b. ...a **mi** a **thi** ac **Oliuer** a vydwn
and 1SG.IND.SIM and 2SG.IND.SIM and Oliver PRT be.FUT.1PL
 gedymdeithon.
companions
 ‘...and I and you and Oliver will be companions.’ (YCM 59.32–60.1)
- c. ...**ef** a **hi** a aethant y eisted y gyt
3M.SG.IND.SIM and 3F.SG.IND.SIM PRT go.PAST.3PL to sit.INF together
 ‘...he and she went to sit together’ (YSG 3279–80)
- d. ...am hynny **ef** a **Aram** y **vab** yr **hynaf**
for that 3M.SG.IND.SIM and Aram 3M.SG.GEN son the eldest
 a diffodassant y tan...
PRT put.out.PAST.3PL the fire
 ‘...and for this reason he and Aram his eldest son put out the fire...’ (BY 13.5–6)

The availability of coordination for both reduplicated and non-affixed pronouns suggests that they are strong pronouns in Middle Welsh, rather than clitics or weak pronouns.

Affixed pronouns in postverbal position may also be conjoined in Middle Welsh as in Modern Welsh:^{9, 10}

- (18) a. y marchawc y buost **ti** a **chwbyl** o
the knight PRT be.PRET.2SG 2SG.AFF.SIM and all of
gedymdeithyon y Vort Gronn yn y damunaw.
companions the table round PROG 3M.SG.GEN want.INF
 ‘the knight that you and all of the knights of the Round Table wanted.’
 (YSG 217–18)
- b. ...kyrchu y Iwerdon a oruc **ef** a
head.INF to Ireland PRT do.PAST.3SG 3M.SG.AFF.SIM and
Madoc ap Riddit.
Madog ap Rhiddid
 ‘...he and Madog ap Rhiddid headed for Ireland.’ (BTy₂ 70)

In these cases, as in Modern Welsh, there is first-conjunct agreement between the subject and the verb. This is seen clearly in (18)a., where the verb is 2SG, although the subject involves coordination of a 2SG pronoun with a 3PL noun phrase.

In Modern Welsh, the affixed series must immediately follow the head of which they are an argument (this can be a verb, preposition or noun). The only exception is in the noun phrase, where an adjective may intervene between the head noun and an affixed pronoun acting as a possessor:

- (19) fy nghar glas **i** / **innau**
1SG car blue 1SG.AFF.SIM / 1SG.AFF.CONJ
 ‘my blue car’

In Middle Welsh, the exceptions are more widespread. In particular, there are cases where an affixed pronoun acting as the subject of a (typically unaccusative) verb may be separated from it by other predicational material:

- (20) a. A chyn bydwn llystat **i** ytti...
and before be.FUT.1SG stepfather 1SG.AFF.SIM to.you
 ‘And before I will be your stepfather...’ (YCM 119.30–1)

- b. ...hyt tra vwyf vyw i...
...as.long.as while be.PRES.SUBJ.ISG alive ISG.AFF.SIM
 ‘...as long as I live...’ / ‘...as long as I’m alive...’ (YCM 127.23)

The equivalents of both sentences in (20) in Modern Welsh would reverse the word order of predicate noun phrase / adjective phrase and subject pronoun, placing the subject pronoun immediately after the verb. This suggests that they are less dependent in nature in Middle Welsh than in Modern Welsh. The question of what coordination behaviour indicates about the status of affixed pronouns in Middle Welsh can be left for the moment, and will be discussed with reference to analyses of the pronouns below.

Cardinaletti & Starke’s third criterion is modification. Modification of a preverbal pronoun, whether reduplicated or non-affixed, is permitted in Middle Welsh. Examples are given with modification of a subject pronoun by an emphatic reflexive in (21) for reduplicated pronouns and in (22) for non-affixed pronouns.¹¹

- (21) a. ...**miui** **uuhunan** a ’e lladvn ef...
ISG.REDUP myself PRT 3SG.ACC kill.COND.ISG 3M.SG.IND.SIM
 ‘...I myself would kill him...’ (BD 123.8)
- b. **myui** **uuhun** a wn
ISG.REDUP myself PRT know.PRES.ISG
 ‘I myself know’ (MIG 190)
- (22) a. ...a **thi** **dy hun** a wybydy hynny...
and 2SG.IND.SIM yourself PRT know.FUT.2SG this
 ‘...and you yourself know this...’ (SG 183.38)
- b. Ac **ef** **ehun** a dywawt yn yr Euengyl...
and 3M.SG.IND.SIM himself PRT say.PRES.3SG in the Gospel
 ‘And he himself says in the Gospel...’ (YSG 2264–6)

Both reduplicated and simple pronouns may appear in ‘peripheral’ positions. That is, they may stand alone, they may appear separated from related material by an interpolation, and they may appear after *namyn* ‘except’:

- (23) a. ‘**Tydi**, vy chwaer,’ heb ef...
2SG.REDUP ISG.GEN sister QUOT 3M.SG.AFF.SIM
 ‘“You, my sister,” he said...’ (P 24.4)
- b. ‘**Myui**, y rof a Duw’, heb ynteu.
ISG.REDUP between.ISG and God QUOT 3M.SG.AFF.CONJ
 “‘Me, between me and God,’ he said.” (YSG 5088)
- (24) a. ‘**Mi**, ys gwir,’ heb ef, ‘a ’y hadeilyawd...’
ISG.IND.SIM COP true QUOT 3M.SG.AFF.SIM PRT 3SG.ACC build.PAST.3SG
 “‘It is me, it is true,’ he said, ‘that built it...’” (G 227)
- b. nyt oes neb heb le idaw heno **namyn mi**.
NEG be.PRES.3SG anyone without place to.3M.SG tonight except ISG.IND.SIM
 ‘there is no one without a place for him tonight except me.’ (PKM 49.7–8)

Affixed pronouns are not found in any of these ‘peripheral’ positions.

Finally, Middle Welsh had an expletive construction using the masculine 3SG simple pronoun *ef* as an expletive:

- (25) **ef** a doeth marchawc arall y ’r llys...
3M.SG.IND.SIM PRT come.PAST.3SG knight other to the court
 ‘...there came another knight to the court...’ (P 11.22)

It appeared in the typical environments crosslinguistically for expletive constructions, such as with an unaccusative or impersonal verb, and also functioned as a dummy subject in cases of clausal extraposition. The expletive subject in Middle Welsh is always simple *ef*. Reduplicated *efo* does not appear in this construction (but see below for the later period). The expletive pronoun is also never postverbal. Although there could be many reasons for this, this means that the expletive pronoun is never realized as an affixed pronoun.

The evidence of the tests given above broadly suggests that Middle Welsh had two strong series of pronouns. Both the reduplicated and non-affixed series of pronouns pass most of Cardinaletti and Starke's tests for strong pronominal status. The only way in which the non-affixed series are exceptional as strong pronouns is that the simple non-affixed pronoun *ef* is permitted to function as an expletive subject. It nevertheless seems safe to analyse both as full noun phrases (DPs).

The status of affixed pronouns is less clear, since they pass some of the tests for strong pronouns status, in particular by permitting coordination. It has often been argued that the agreement between a postverbal subject pronoun and the verb, including the manifestation of the first-conjunct effect seen in (18)a., is due to a relatively superficial relationship between the verb and the subject pronoun, in some sense a corollary of its clitic status, however formulated (Borsley ms., Rouveret 1991, 1992, 1994, 1997). Similar considerations apply in Breton (Borsley and Stephens 1989, Stump 1984, 1989). This might suggest that some of the exceptional features of affixed pronouns may nevertheless be compatible with treating them as clitics. Their status is not crucial for what follows, but we can tentatively regard them as weak pronouns.

2.2.2. Extent of pronoun doubling in Middle Welsh

Pronoun doubling is a pervasive feature of Middle Welsh syntax. The pronominal object of a non-finite verb is expressed using the same pronominal forms as are found with possessors in noun phrases, both traditionally treated as 'genitive'.¹² In both cases, a 'genitive' clitic in prehead position may be doubled by an affixed pronoun in a posthead position. This has already been seen for possessors in examples (13) and (15) above. It is illustrated again in (26), where there is doubling of the 2SG pronoun (object of non-finite verb) as *dy ... ti*.¹³

- (26) Rac **dy** welet **ti** yn ymhalogi wrth y pryf
before 2SG.GEN see.INF 2SG.AFF.SIM PROG defile.oneself.INF by the creature
 hwnnw...
 DEM
 'Lest I should see you / Rather than see you being defiled by that creature...'
 (PKM 62.28–63.1)

In contrast, however, no such doubling is available with subject pronouns. A preverbal subject pronoun may not appear in the same clause as a postverbal one. Thus, while (27) is grammatical with a preverbal subject pronoun, (28), with doubling of preverbal *mi* and postverbal *i*, is never found.

- (27) Mi a rodaf attep.
1SG.IND.SIM PRT give.PRES.1SG answer
 (28) *Mi a rodaf i attep.
1SG.IND.SIM PRT give.PRES.1SG 1SG.AFF.SIM answer
 'I shall give an answer.'

2.3. Late Middle Welsh developments

In late Middle Welsh (fourteenth century) and Early Modern Welsh (EMW, fifteenth and sixteenth centuries), the first (unstressed) syllable of the reduplicated pronouns began to be reduced to schwa, spelled <y>; see also (Morgan 1952: 453). Examples are given in (29).

- (29) a. ...kanys **y hi** a wnathoedit ohonaw ef.
for 3F.SG.REDUP PRT make.PLUPER.IMPERS from.3M.SG him
 ‘...for she had been made from him.’ (YSG 4281–2)
- b. kanys **yntwy** ni wyddant // beth i maent yn
for 3PL.REDUP NEG know.PRES.3PL what PRT be.PRES.3PL PROG
 i wnythyr
3M.SG.GEN do.INF
 ‘...for they do not know what they are doing.’
 (CHIG, BL. Add. 14986: ‘Y Dioddefaint’ 327–8)

Further phonological reduction occurred in the sixteenth century leading to loss of the entire first syllable. For some of the pronouns, loss of the first syllable caused the reduplicated pronouns to fall together with the simple non-affixed (independent) pronouns. For instance, in the 2PL, reduplicated *chwichwi* > *chwychwi* > *ychwi* > *chwi*, falling together with simple non-affixed *chwi*. In other cases, there are subtle differences between the outcome of the reduction of the reduplicated pronoun and the original simple non-affixed pronoun. So, in the 1SG reduplicated *myfi* is reduced first to *yfi* and then to *fi* /vi/, still distinct from simple non-affixed *mi* /mi/. The biggest difference is in the 3PL, where reduplicated *hwyntwy* undergoes a series of reductions, *hwyntwy* > *wyntwy* > *yntwy* > *ynhwy* > *nhwy* > *nhw*. In contemporary colloquial Welsh, the form *nhw* has entirely replaced the inherited simple independent form *hwy(nt)*.

person / number	phonological development
1SG	<i>mifi</i> > <i>myfi</i> > <i>yfi</i> > <i>fi</i>
2SG	<i>tidi</i> > <i>tydi</i> > <i>ydi</i> > <i>di</i>
3M.SG	<i>efo</i> > <i>yfo</i> > <i>fo</i>
3F.SG	<i>hihi</i> > <i>hyhi</i> > <i>y hi</i> > <i>hi</i>
1PL	<i>nini</i> > <i>nyni</i> > <i>yni</i> > <i>ni</i>
2PL	<i>chwichwi</i> > <i>chwychwi</i> > <i>ychwi</i> > <i>chwi</i>
3PL	<i>hwyntwy</i> > <i>wyntwy</i> > <i>yntwy</i> > <i>ynhwy</i> > <i>nhwy</i> > <i>nhw</i>

Table 2. Phonological developments of Middle Welsh reduplicated pronouns in late Middle Welsh and Early Modern Welsh.

As well as coming together phonologically, the reduced reduplicated pronouns and the simple independent pronouns also came together pragmatically, with a difference in terms of focus becoming less and less evident in late Middle Welsh and early Modern Welsh. For instance, in (30), the subject is a 1SG reduplicated pronoun (*myui*) but the preceding context (‘Lords’, he said, ‘surrender and do not incur being killed; for it would be a great loss to lose such good men as you.’) gives no indication of special focus on the subject. In this example then, the reduplicated pronoun *myui* seems interchangeable with the simple independent pronoun *mi*.

- (30) Ac am hynny myui a 'ch gwediaf chwi yr
and for DEM 1SG.REDUP PRT 2PL.ACC beseech.PRES.1S 2PL.SIM.AFF for
 Duw y ymroi...
God to surrender.INF
 ‘And for that reason I beseech you for God’s sake to surrender...’ (YSG 4808–10)

Taken together, these changes meant that the two came to be variants of a single series, with their distribution determined partly by syntactic context and partly by poorly understood sociolinguistic factors (principally dialect and register). On the whole, reflexes of earlier reduplicated pronouns are more colloquial in Modern Welsh than the reflexes of earlier simple independent pronouns. For instance, 1SG *fi* is more colloquial than *mi*, and 3SG *fo* is more colloquial than *ef*.

3. THE EARLY MODERN WELSH REANALYSIS OF PREVERBAL PRONOMINAL SUBJECTS AS COMPLEMENTIZERS

With the background of the V2 system and the pronominal system of Middle Welsh, we can now turn to the main developments that result in reanalyses within the C-system and the emergence of agreeing complementizers.

3.1. The innovation of a main-clause complementizer

The first change involves the reanalysis of the expletive subject in preverbal position (DP in [Spec, CP]) as an affirmative complementizer (C-head). With the reduction of the reduplicated pronouns in late Middle Welsh, the reduplicated 3M.SG pronoun, *efo* (*yvo* in (31)), and a dialect variant of it, *efe*, began to participate in this construction too:

- (31) Ac yvo a ellir ydnabod gwaed mallinckoliws...
and 3M.SG.REDUP PRT can.PRES.IMPERS recognise.INF blood melancholy
 ‘And melancholy blood can be recognised...’ (CI 143.6) (1540s)
- (32) efe a ddywedir ... fal hyn
3M.SG.REDUP PRT say.PRES.IMPERS like this
 ‘it is said ... thus’ (MDD 239, cited in *Geiriadur Prifysgol Cymru* 1170) (1651)

With the phonological reduction of reduplicated pronouns, reduced forms of *efo* and *efe*, namely *fo* (*vo* in (33)) and *fe* (*ve* in (34)) appear here too:

- (33) vo ddaw duw yma
3M.SG.REDUP come.PRES.3SG God here
 ‘God will come here...’ (CHIG, BL. Add. 14986: ‘Y Dioddefaint’ 391) (ms. 1552)
- (34) ...ve gollid yr hen lyfreu.
3M.SG.REDUP lose.IMP.F.IMPERS the old books
 ‘...the old books would be lost.’ (YLhH [8]) (1547)

Note that, in examples (33) and (34), the particle *a* is omitted. This omission is increasingly the norm in the sixteenth and seventeenth centuries. What remains is the fronted pronoun and the mutation effect of the omitted particle on the following verb (*daw* > *ddaw* and *collid* > *gollid* in these examples). The examples in (35) show that omission is a more general phenomenon, occurring also after a non-pronominal subject and after other pronouns. In earlier Welsh, both these examples would have contained the particle *a* between the topicalized subject and the verb.

- (35) a. ...a jessu gwnnwys yolwe y vynydd...
and Jesus raise.PAST.3SG 3SG+gaze up
 ‘...and Jesus raised up his gaze / looked up...’ (DE 402.10–11) (1550–75)
- b. chwi gewch asen yn rhwym ac ebol ygid ac yhi
2PL.IND.SIM find.PRES.2PL ASS PRED bound and foal with 3F.SG.REDUP
 ‘You will find an ass tied up and a foal with it.’ (KLIB 1.25–6) (1567)

Loss of the particles reduced the evidence that preverbal pronouns were in specifier rather than head positions, and consequently was a precondition for any reanalysis of preverbal pronouns as complementizers.

At roughly the same time, the former restrictions on the environments in which the expletive subject *ef*, etc., could appear were lost and, with one exception noted below, the new *fe / fo* and variants can appear before any 3SG verb. An early example with expletive *ef* in a transitive main clause is given in (36).

- (36) ac ef awarandewis duw y gwedi
and 3M.SG.SIM.IND PRT+listen.PAST.3SG God 3F.SG prayer
 ‘and God listened to her prayer’ (BTy₁ 89b.18–20) (15th century)

As with the previous expletive construction, however, the new *fe / fo* appears only in main clauses. Since *fe*, etc., no longer performs the function of an expletive subject, it is reasonable to suppose that it undergoes a reanalysis. Its modern equivalent, the preverbal particle *fe*, is normally analysed as a main-clause complementizer. Although Early Modern Welsh *fe*, etc., does not have exactly the same distribution as the preverbal particle today, they are similar enough in distribution to suggest that the analysis of *fe* today as a main-clause affirmative complementizer should be carried over into Early Modern Welsh. We can therefore propose a reanalysis, in the sixteenth century, of the kind illustrated in (37):

- (37) [CP [Spec [DP *ef(e)*]] [C *a+verb*] [TP [T *t_{verb}*] [vP *t_{verb}* [VP [DP subject] [V *t_{verb}*]]]]]
 =>
 [CP [C *fe+verb*] [TP [DP subject] *t_{verb}* [vP *t_{subject}* *t_{verb}* [VP [V *t_{verb}*]]]]]

Willis (1998: 153–61) proposes that the Middle Welsh expletive *ef* is merged directly into [Spec, CP] and requires Case. These properties are specified in order to account for the fact that it never occurs in postverbal contexts (in inversion structures), and that it is restricted to unaccusative and impersonal verbs. Adapting this analysis to a minimalist framework, we can propose that *ef* (lexically) bears a valued (interpretable) Topic feature but an unvalued Case feature:

- (38) *ef* D
 [Top: Expletive]
 [phi: 3M.SG]
 [uCase: ____]

In the initial system, main-clause C bears an unvalued Topic feature (the trigger for V2). If *ef* is present in the numeration, it is merged in [Spec, CP], thereby valuing this feature as [uTop: Expletive]. Direct merger in [Spec, CP] occurs rather than raising of *ef* from some lower position, because of the principle that Merge is preferred over Move (Merge over Move, Chomsky 2000). *Ef* then scans a value for its unvalued Case feature, and values itself as Nominative from T. The phi-features of T are either valued as [3SG] as a by-product of this

operation, or else are valued by some default mechanism as [DEFAULT] (equivalent to unvalued but convergent). In either case, the result will be the same 3SG morphology on the verb.

Under the reanalysed system, expletive *ef* fails to be acquired for the lexicon. In its place, the particle *fe* appears. The lexicon entry for this item, given in (39), specifies it to be a main-clause complementizer with affirmative force.

- (39) *fe / fo* C
 [Pol: Aff]
 [Force: Main]

As a C-head, it is merged directly in C. The remainder of the clause is then like any VSO clause in the language. Nothing hinges on the details of the analysis of VSO, but, in (37), it is assumed that the subject raises to [Spec, TP].

The distribution of this complementizer nevertheless remains restricted. Until the mid-eighteenth century (see below), it may appear only before a third-person lexical (non-pronominal) subject. How can we account for this restriction? Middle Welsh verbs show no agreement with a postverbal third-person lexical subject. Instead they appear in a default 3SG form. This is obviously clearest in the 3PL, where the verb is 3PL if there is a postverbal subject pronoun (or a null pronominal subject), but is 3SG if the postverbal subject is a lexical plural noun phrase (Evans 1964: 179). An example of this configuration is given in (40).

- (40) Yna y doeth y kennadeu...
then PRT come.PAST.3SG the messengers
 ‘Then the messengers came...’ (PKM 79.27)

This restriction then amounts to a statement that *fe / fo* may precede only a verb in the default form. Assuming the default form to instantiate a realization of a verb with no person-number features, we need to add a lexical requirement, stating that the innovating item is a complementizer that selects a T with default agreement features. The additional selectional requirement given in (41) is therefore necessary:

- (41) *fe / fo* ___ [TP [T [Agr: DEFAULT]]]

Another, perhaps superior, way of looking at this is to say that the affirmative main clause complementizer is inserted with unvalued person-number features. These are valued under agreement with the verb. If the value selected is default agreement, then C is spelled out as *fe / fo*, otherwise there is no legitimate morphological form, and the derivation crashes. Note that this second conceptualization builds a morphological gap into the system: there are some agreement values for C for which there is no corresponding morphological form. We should not be surprised if this created pressure for the creation of forms to fill these gaps.

The restriction itself is historically contingent, that is, it arises because the subject of an expletive construction in Middle Welsh could never be a pronoun, and that restriction is carried through after the reanalysis. Whereas the original restriction had a pragmatic motivation, pronominal subjects being incompatible with the presentational focus placed on the subject of an expletive construction, the later restriction has no synchronic basis and is therefore synchronically arbitrary. Stating it as a selectional restriction therefore seems appropriate.

3.2. Appearance of pronoun doubling

Several innovations in the seventeenth and eighteenth centuries suggest that other preverbal (simple) subject pronouns, which previously occupied the topic position, [Spec, CP], were also reanalysed as complementizers (in C), thereby eliminating the gap in the system of agreeing complementizers. This specifier-to-head reanalysis created a full class of affirmative complementizers that agreed with their subjects.

The first innovation that is indicative of this reanalysis is the innovation of pronoun doubling, that is, the appearance of a subject pronoun in both immediately preverbal and in immediately postverbal position.

3.2.1. Evidence of pronoun doubling

There are sporadic examples of pronoun doubling in the second half of the seventeenth century (examples (42), also *RhC* 585, 1693), and by the eighteenth century examples are fairly common (examples (42)). By this time, the particle *a* is almost always omitted in this context, leaving only its mutation effect.

- (42) a. **Mi gredaf i** synwyr un gigfan o flaen
1SG.IND.SIM believe.PRES.1SG 1SG.AFF.SIM sense one raven of front
 cant o golomennod.
hundred of doves
 ‘I believe the sense of a raven ahead of a hundred doves.’ (*LITA* 21) (1653)
- b. **Mi werthais i** lawer tre fy hunan
1SG.IND.SIM sell.PAST.1SG 1SG.AFF.SIM many town 1SG self
 ‘I sold many towns myself’
 (*CHIG*, Y rhyfel cartrefol 776) (17th century after 1660)
- c. **mi fynne fi** ei chrogi hi
1SG.IND.SIM want.PRES.1SG 1SG.AFF.SIM 3F.SG hang.INF she
 ‘I want her hanged’ (*WDS*, Caernarfon Sessions, 1730)
- d. ...i hyn **mi fyddaf fi** barod i roddi ’r
to this 1SG.IND.SIM be.FUT.1SG 1SG.AFF.SIM ready to give.INF the
 help goreu a fedrwyf fi i chwi.
help best PRT can.PRES.SUBJ.1SG 1SG.AFF.SIM to you.IND
 ‘...in this I will be ready to give you the best help that I can.’ (*PAC* 59) (1755)

The examples in (42) are all from the 1SG, but examples are found with all person-number combinations. A selection of other person-number combinations is given in (43).

- (43) a. **Di elli di** anfon mwy o bleidiau attaf...
2SG.IND can.PRES.2SG 2SG.AFF.SIM send.INF more of parties to.1SG
 ‘You can send more to me...’ (*LIWD* 226) (1749)
- b. ...**fe aeth o** i ’w ddwyn o
3M.SG.IND go.PAST.3SG 3M.SG.AFF.SIM to 3M.SG.GEN steal.INF 3M.SG.AFF.SIM
 o fesul yr hobbet
of measure the hobbet
 ‘...he went to steal it by the hobbet’ (*WDS*, Flint Sessions 1767)
- c. **Ni ddawn i** rhawg i ben a henwi,
1PL.IND.SIM come.PRES.1PL 1PL.AFF.SIM soon to end with name.INF
 Faint mae natur yn i golli
how.many be.PRES.3SG nature PROG 3M.SG lose.INF
 ‘We shall soon manage to name how many nature is losing...’
 (*GN* 32.36–7) (1769)

- d. **Chwi** **ellwch** **chwi** eich sicrhau eich hunain...
 2PL.IND.SIM can.PRES.2PL 2PL.AFF.SIM 2PL assure.INF 2PL self
 ‘You can assure yourselves...’ (LIADC 96) (1743)

3.2.2. An unexpected postverbal pronoun

In a not insignificant number of cases, the form of the postverbal subject pronoun in the 1SG is *fi* (cf. Willis 1998: 212). This is unexpected as a development of the Middle Welsh system, where postverbal subjects must be in the affixed form, in the 1SG, *i*. In the present tense, where the ending of the 1SG form of the verb is normally *-af*, the appearance of *fi* can be treated as a purely orthographic phenomenon, with *fi* attributed to the presence of *-f/v/* in the ending (as in (42)c. and d. above). However, this phenomenon is also found with a non-present-tense verb, and these cases demonstrate that we really are dealing with *fi* not *i*. A selection of relevant examples is given in (44).

- (44) a. **Mi** **wn** **fi** mai gwell gan Noah faddeu...
 1SG.IND know.PRES.1SG 1SG.IND FOCUS better with Noah forgive.INF
 ‘I know that Noah prefers to forgive...’ (LITA 38) (1653)
- b. **mi** **ddianges** **fi** nad elw i
 1SG.IND escape.PAST.1SG 1SG.IND NEG go.PRES.SUBJ.1SG 1SG.AFF.SIM
 om co
 from+1SG.GEN mind
 ‘I escaped so that I wouldn’t go mad...’
 (CHIG, Y Brenin Llyr 71.23–4) (18th century)
- c. **Mi** **’ch leiciwn** **fi** **chwi** yn ’wyllysgar,
 1SG.IND 2PL like.COND.1SG 1SG.IND 2PL.IND.SIM PRED willing
 O flaen un ferch ar wyneb daiar
 of front any girl on face earth
 ‘I would willingly like you ahead of any girl on the face of the earth...’
 (YRW 57.26) (1812 [1736])
- d. **Mi** **fym** **fi** yn rhodio yngwlad fy hunan...
 1SG.IND be.PRET.1SG 1SG.IND PROG stroll.INF in-country 1SG self
 ‘I was strolling in my own country...’ (HHO 60) (1762)

Exactly the same patterns are found with a postverbal conjunctive pronoun, that is, unexpected use of the independent form *finnau* (colloquial spelling variants *fina*, *fine* etc.) in postverbal position where affixed *innau* would be expected:

- (45) a. **Mi** **gefis** **fina** ddysc o ’r Nefoedd...
 1SG.IND get.PAST.1SG 1SG.IND.CONJ learning from the heavens
 ‘I (too) received learning from the heavens...’ (HHO 30) (1762)
- b. **Mi** **glowis** **fina** fod rhiw Dwysog,... Wedi boddi
 1SG.IND hear.PAST.1SG 1SG.IND.CONJ be.INF some prince PERF drown.INF
 hefo ei deuly...
 with 3M.SG family
 ‘I (too) heard that some prince had drowned with his family...’ (HHO 52) (1762)
- c. **Mi** **glywais** **fina** wneud o ’r Cymru, Lle
 1SG.IND hear.PAST.1SG 1SG.IND.CONJ make.INF of the Welsh where
 mae Llyndan allor felly...
 be.PRES.3SG London altar thus
 ‘I (too) heard that the Welsh thereby made an altar where London is...’
 (HHO 128) (1762)

- d. **Mi dybiais fine** fod ger bron Angylion yn
 1SG.IND think.PAST.1SG 1S.IND.CONJ be.INF nearby angels in
 fyngolwg.
1SG+sight
 ‘I (on the other hand) thought that there were angels nearby in my sight.’
 (Hugh Jones (Llangwm), *Tair o gerddi newyddion* 4.10 (= Davies 1908-11, item
 no. 124)) (late 18th century)

Since Early Modern Welsh *fi* otherwise derives from a reduplicated pronoun, and the 1SG reduplicated pronoun *myfi* could never appear in postverbal subject position, this is something of a puzzle. Most disturbingly, it is apparently an innovated exception to the generalization that postverbal subject pronouns use the affixed form.

In fact, it raises the possibility that another reanalysis may have contributed, perhaps only partially, to the development of the agreeing affirmative complementizers. A few examples are found, as in (46), where a pronoun is right-dislocated and matched by a preverbal subject pronoun. The dislocated pronoun in these cases is naturally in an independent rather than an affixed form, since it is in a ‘peripheral’ position.

- (46) a. **mi fynaf gyfiawnder finnau.**
1SG.IND want.PRES.1SG justice 1SG.IND.CONJ
 ‘Me, I want justice.’ (CHIG, Y rhyfel cartrefol 374) (17th century after 1660)
 c. **Mi ddoithim tuag adra fina...**
1SG.IND come.PAST.1SG towards home 1SG.IND.CONJ
 ‘I came home, me...’ (HHO 59) (1762)

We thus have an environment in which a preverbal subject pronoun coexists with a postverbal independent pronoun. Cases where the verb was intransitive and the postverbal pronoun was simple, that is, sequences like the hypothetical (47), analogous to right-dislocation constructions in various Romance languages, were amenable to a reanalysis whereby the postverbal pronoun, originally right-dislocated, might be reanalysed as integral to the clause. This would lead to the innovation of clauses such as those illustrated above in (44).¹⁴

- (47) **Mi arhosais(,) fi.**
1SG.IND wait.PAST.1SG 1SG.IND
 ‘I waited, me.’

3.3. Repositioning of conjunctive pronouns

At around the same time, conjunctive pronouns as subjects begin to appear in a doubling construction too, with a preverbal simple pronoun doubled by a postverbal conjunctive pronoun. This happens in all person-number combinations. Examples from the 1SG are given in (48).¹⁵

- (48) a. **Mi henwaf finnau hênrai eraill.**
1SG.SIM.IND name.PRES.1SG 1SG.CONJ.AFF old.ones other
 ‘I too will name some other ones.’ (LITA 34.19–20) (1653)
 b. **Os lleddis i fy mab fy hun //Mi af**
if kill.PAST.1SG 1SG.SIM.AFF 1SG son 1SG self 1SG.SIM.IND go.PRES.1SG
inne i run ddihenudd
1SG.CONJ.AFF to the.same end
 ‘If I killed my own son, I too will go to the same end.’ (HGC 35.19–20) (c. 1716)

agreement and its loss will be presented below. There is no equivalent formal analysis in Willis (1998).

3.5. Crosslinguistic parallels

Complementizers that agree with the subject are found in a number of varieties of West Germanic, for instance, Bavarian (Bayer 1984, Shlonsky 1994), Flemish (Haegeman 1992, Vogelaer et al. 2002) and other dialects of Dutch. An example is given in (52), where the complementizer bears a 1SG suffix *-k* in agreement with the subject pronoun *ik*.

- (52) Kpeinzen dan-k ik morgen goan.
think.PRES.1SG that.1SG I tomorrow go.PRES.1SG
 ‘I think that I’ll go tomorrow.’ (Haegeman 1992: 49)

Carstens argues that complementizer agreement is due to the presence in some varieties of Germanic of uninterpretable person-number features on C (specifically Fin) (Carstens 2003). These features act as a probe for an Agree relation with the person-number features of the subject. We thus have a derivation for an embedded clause with an agreeing complementizer as in (53) for the sentence in (52).

- (53) [CP C [TP subject T [vP t_{subject} ...]]]
 ~~[phi: 1SG]~~ [phi: 1SG] ~~[phi: 1SG]~~
 [Case: NOM] [EPP] (adapted from Carstens 2003: 397)

In (53), T probes the subject in [Spec, vP], valuing the subject’s Case feature as nominative, and valuing T’s phi features as 1SG. The EPP-feature on T triggers raising of the subject to [Spec, TP]. All these features were uninterpretable, so are marked for deletion at the end of the phase (CP). Carstens argues that the subject remains active, despite having had its Case feature checked, until the end of the phase. When the derivation reaches C, the unvalued phi features of C probe the subject, and are thereby valued as 1SG and marked for deletion. The result is that C bears the phi features [1SG], spelled out as the agreement morpheme on the complementizer *dan-k*. Note two important aspects of this account: agreement is directly between the complementizer and the subject, and is not mediated by the verb or by T; and the account crucially requires the assumption that the subject remains syntactically active for Agree until the end of its phase (CP), allowing it to act as a goal both for verbal agreement and, subsequently, for complementizer agreement.

Adopting a non-lexicalist position of this type, equivalent to the second analysis proposed above for the complementizer *fe*, we can suggest that this reanalysis leads to a grammar with an affirmative complementizer with an unvalued agreement feature. This agreement feature is valued by copying the agreement features of the verb, with the verb raising to adjoin to the complementizer. The result is a fully formed system of complementizer agreement, conforming to general principles of agreement on other heads in Welsh.

3.6. Null subjects

The reanalysed form of (50) importantly contains a null subject *pro*. Middle and Early Modern Welsh allowed null subjects, so it is not unreasonable to posit a reanalysis that creates new instances of the null subject. Clauses with a preverbal agreeing complementizer but no overt postverbal subject continue to be found in the seventeenth and eighteenth centuries, even though informal varieties of Welsh show increasingly limited use of null subjects in

other contexts in this period. Table 3 shows the distribution of null subjects with 1SG verbs in *Y rhyfel cartrefol* (National Library of Wales Cwrtmawr ms. 42). This is an interlude (verse play), attributed to Huw Morys (1622–1709), composed after 1600, showing marked dialect features of north-east Wales. In affirmative clauses where the verb is preceded by *mi*, an overt postverbal subject pronoun is rare, occurring only on three occasions (3%). If *mi* is taken to be a complementizer, then the subject is null in these clauses 97% of the time. This contrasts markedly with negative clauses, where the negative particle *ni(d)* precedes the verb, presumably also in complementizer position. In these clauses the postverbal subject is overt in the vast majority of instances, 95%. We must therefore conclude that the agreeing complementizers license a null subject, whereas, increasingly, the verb alone does not.

	no overt postverbal subject pronoun	overt postverbal subject pronoun	% null subjects
aff. comp. <i>mi</i>	100	3	97
neg. <i>ni(d)</i>	1	21	5

Table 3. Distribution of null subjects in first person singular in the late-seventeenth-century Welsh text *Y rhyfel cartrefol*.

3.7. Loss of agreement and partial agreement systems

From the mid-eighteenth century, the southern variant of the 3M.SG complementizer *fe* begins to be found with non-third-person subjects. Examples are given in (54). In the a. example, *fe* unexpectedly co-occurs with a 2SG verb, and so on.

- (54) a. **Fe a geit** wisgo cyrfat o gowarch
PRT PRT be.allowed.PRES.2SG wear.INF cravat of hemp
 ‘You shall be allowed to wear a cravat of hemp’ (YDG 38.21–2 (18th c. [1744])
- b. **Fe wnaethoch** chware cas a nyni
PRT play.PAST.2PL game evil with 1PL.REDUP
 ‘You played an evil game with us.’
 (= Davies 1908-11, item no. 77B, 6, cited in *Geiriadur Prifysgol Cymru* 1267) (1760)
- c. **fe lyncan’** am y cynta ’r byd yma ’n damaid
PRT swallow.PRES.3PL for the first the world DEM PRED mouthful
 ‘They’ll race to be the first to swallow this world in a mouthful.’
 (Hugh Jones, Llangwm, ‘Daeargryn Lisbon’, *BB18* 67.25) (after 1755)

The same happens in northern dialects at about the same time with the 1SG agreeing complementizer, *mi*:

- (55) a. oni buasae hi efa ’r gwas yn llofft y gwair
unless be.COND.3SG she with the lad in loft the hay
mi fuase heb blant etto
PRT be.COND.3SG without children still
 ‘If she hadn’t been with the lad in the hayloft, she’d be childless still.’
 (WDS, Flint Sessions 1754)

- b. **Mi welen** yno ffenest...
PRT see.IMPF.3PL there window
 ‘They saw there a window...’
 (Ellis Roberts, *Dwy o gerddi newyddion*, from Lloyd 1937: 98) (1759)

This innovation represents the loss of the agreement feature on the complementizer, allowing *mi* and *fe* to appear with a verb of any person-number combination (for further details and more extensive exemplification, see Willis 1998: 225–40).

One question that arises is whether the loss of agreement itself showed some kind of internal structure, being carried out in stages. There is some evidence that this was a staged phenomenon. In particular, in parts of the south, where complementizer agreement was more persistent, there is evidence that the local equivalent of *mi*, namely *fi*, survived as a 1SG complementizer, while at the same time, *fe* had spread as a general (non-person-specific) complementizer.

This evidence comes in the form of partial complementizer-agreement systems that seem to have existed in some dialects. In general, complementizer agreement appears to have been preserved best in the dialects of the far south and south-east of Wales. It survived until the second half of the nineteenth century in Carmarthenshire dialect, judging by its extensive use in dialogue in the satirical tale, *Wil Brydydd y Coed* (1863–5):

- (56) **Ti** **gei** **di** weled bod rhyw ddrygau ar
COMP.2SG get.PRES.2SG 2SG.AFF see.INF be.INF some wrongdoing on
gerdded...
walk.INF
 ‘You can see that there’s some wrongdoing at work...’ (WBC 39.8–9, 1863–5)
- (57) ...a phan fytodd Adda ’r afal, **ni** **bytsom**
and when eat.PAST.3SG Adam the apple COMP.1PL eat.PAST.1PL
ninnau fe.
1PL.AFF.CONJ 3M.SG.IND
 ‘...and when Adam ate the apple, we ate it too.’ (WBC 134.25–6, 1863–5)

Complementizer agreement also occurs in dialogue in the novels of Daniel Owen (1880s), probably representative of a north-eastern dialect of the time. Complementizer agreement is reported for the far south-eastern dialect of Nantgarw (Thomas 1993) and the Ely Valley (Phillips 1955) right up to the death of the dialects in question in the latter part of the twentieth century (for examples, see also Willis 1998: 223–4).

There seems to be historical evidence in other southern dialects for a conservative system with partial retention of the agreement system. Consider the following data from a conservative speaker of the Neath dialect born in 1854:

- (58) ...**fi** **stedda** **inna** yn y fan hyn
COMP.1SG sit.PRES.1SG 1SG.CONJ.AFF in the place this
 ‘...I’ll sit down here’ (AHL)
- (59) **Fi** **alla** **i** fentro gwed...
COMP.1SG can.PRES.1SG 1SG.SIM.AFF venture.INF say.INF
 ‘I can venture to say...’ (AHL)
- (60) **fi** **stopas** yn sytan fel post
COMP.1SG stop.PAST.1SG PRED sudden like post
 ‘I stopped suddenly like a post’ (AHL)

Examples (58) to (60) show that a preverbal element *fi* occurs in main clauses where the verb is 1SG. In (58), the postverbal subject is a conjunctive pronoun, *inna*. As we saw above, this

suggests that *fi* itself is not a pronoun. In (59), the postverbal subject is a simple affixed pronoun *i*; and in (60) we can posit a null subject (*pro*) in postverbal position. Given the data in (58) to (60), *fi* appears to be an agreeing complementizer, derived historically from the 1SG reduplicated pronoun of Middle Welsh (*myui*), and corresponding to *mi* in northern dialects.

The dialect also has a general preverbal particle *fe*, which is what we find in cases where the verb is not 1SG, as in the following examples, where the verb is 1PL and 3PL respectively:

- (61) a. **fe awn** ati 'nawr ar unwaith
PRT go.FUT.1PL to.3F.SG now at once
 'we'll go to it now at once' (AHL)
- b. **fe geson** 'u cosbi
PRT get.PAST.3PL 3PL punish.INF
 'they were punished' (AHL)

In the 1SG, *fi* is the dominant particle used, but is evidently not compulsory, as the following example, with *fe* before a 1SG verb, demonstrates:

- (62) **fe geso** fynd dipyn bach i 'r ysgol
PRT get.PAST.1SG go.INF little little to the school
 'I was allowed to go a bit to school' (AHL)

A reasonable conclusion is that, for the relevant speakers, this dialect retained two affirmative complementizers, namely *fi* and *fe*, with *fi* being marked as 1SG, and *fe* being a general affirmative complementizer found in all person-number combinations. This is consistent with the evidence of agreeing complementizers in Germanic varieties, where, although agreement in all person-number combinations is attested in some varieties (for instance, West Flemish), it is typical for complementizer agreement to be restricted to certain person-number combinations. Many Dutch dialects with complementizer agreement have only partial agreement. For instance, in Overijssel Dutch there is only a 2SG ending *-s*, and in many eastern dialects only a 1PL ending *-e* (Hoekstra and Smits 1999). Among Bavarian dialects, some have complementizer agreement only in the second person (SG and PL), others additionally have it in the 1PL (Fuß 2004):

- (63) a. ob-st DU nach Minga kumm-st
whether.2SG you.SG to Munich come.PRES.2SG
 'whether you come to Munich' (Bavarian, Fuß 2004: 207)
- b. wem-ma MIA aaf Minga fon
when.1PL we to Munich drive.PRES.1PL
 'when we drive to Munich' (Lower Bavarian, Fuß 2004: 218)

4. DISCUSSION

The emergence of agreeing complementizers from pronouns in Welsh is a clear example of reanalysis of a phrasal specifier as a head, thereby leading to the emergence of a new grammatical item (grammaticalization). I have argued that in the Welsh case, it emerged in two stages via two reanalyses:

- (i) the reanalysis of the expletive subject as an affirmative complementizer restricted to non-pronominal contexts;
- (ii) the reanalysis of all preverbal subject pronouns as affirmative main-clause agreeing complementizers.

The first reanalysis created the conditions for the second by creating the category of affirmative complementizer in Welsh, and by creating a paradigmatic gap, since there were no forms of the complementizer for use with a pronominal subject. A third stage, the loss of the agreeing complementizers via relaxation of the agreement requirement has also been documented, and we have seen evidence that this may be viewed as itself a staged process.

I now turn to examine the changes in their broader theoretical and crosslinguistic context, considering how they would be accounted for in terms of recent formal theories of grammaticalization, and considering them in comparison with the emergence of agreeing complementizers in other European languages.

4.1. Accounting for the changes within a formal theory of syntactic change

4.1.1. *Van Gelderen (2004a, b)*

Van Gelderen has suggested (Van Gelderen 2004a, 2004b) that grammaticalization is the result of two complementary principles, the Head Preference Principle and the Late Merge Principle:

- (64) Head Preference or Spec to Head Principle
Be a head, rather than a phrase
- (65) Late Merge Principle
Merge as late as possible

The Head Preference Principle creates pressure for phrases to be reanalysed as heads, and the Late Merge Principle tends to eliminate movement in favour of merging directly into the (previously) derived position.

These principles are conceived of as having a two-fold influence. They are constraints on language acquisition in that children will favour hypotheses about structure that conform to these principles in the absence of any evidence to the contrary. They are also seen as constraints on adult performance, in that speakers will prefer structures which conform to these principles where more than one structure is available.

An example of the effect of the Head Preference Principle in adult speech is English speakers' reluctance to use pronouns in branching structures (co-ordination, or with restrictive relative clauses). Speakers show some reluctance to use sentences such as (66), with coordinated pronouns in subject position, whereas the corresponding non-coordinated structure is fully acceptable in (67).

- (66) (?)She and I arrived late.
- (67) I arrived late.

Van Gelderen argues that coordinate structures force pronouns to be phrases, whereas, in non-coordinate structures they are heads. Note that this requires a rather special interpretation of 'Be a head': in this case, the Head Preference Principle does not apply to the lexical entry for the pronoun (in both cases, *I* is the spellout of a pronoun, that is, a D head), but rather to the structure in which it is used. In fact, we need to assume that *I* adjoins to the verb in (67), and is therefore a head (D) adjoined to another head (V) (ignoring the technical difficulties that such adjunction poses in the present instance). In (66), on the other hand, the co-ordination means that the pronoun is embedded within a larger phrase. The structure of co-ordination is a much vexed question, but if *I* is the complement of the co-ordination head *and*, it would be both a head and a phrase under Bare Phrase Structure.

The degraded acceptability of (66) therefore follows from the Head Preference Principle only if it is interpreted to mean, in this case, ‘Be a head only, rather than a head and a phrase’ or, perhaps more theoretically plausible, ‘Occupy a head position [i.e. head-adjoin], rather than a phrasal position [specifier, complement position]’.

Although the Head Preference Principle, for adults, is thus a constraint on structures, not lexical entries, it may lead to change in lexical entries if children fail to notice the need to produce the dispreferred structure and posit lexical entries accordingly. This becomes clearer when applied to the Welsh data.

We have seen that preverbal subject pronouns in Middle Welsh occupied [Spec, CP]. The Head Preference Principle would require adults, in performance, to adjoin such pronouns to C if this was possible. It was argued above that the Middle Welsh C head bore an unvalued Topic feature, which agreed with a topic element and attracted that element to the CP. If the topic was a subject pronoun, what would happen? According to the Head Preference Principle, a pronoun (simultaneously a head and a phrase) would be expected to adjoin to C rather than move to [Spec, CP]. Since it is a head, it can adjoin to C, and, according to the Head Preference Principle, if it can adjoin to C, it preferentially does so. Alternatively it could be suggested that the presence of the complementizer in C prevented the pronoun from adjoining to C. Although it is not clear why this would be, such a restriction would capture the intuition that reanalysis of preverbal pronouns as agreeing complementizers became possible only once the preverbal particles had eroded phonologically. Let us assume then that, in the initial Middle Welsh system, preverbal subject pronoun had to move to [Spec, CP].

The phonological erosion of the preverbal particles in speech (see section 3.1 above) removed the obstacle to adjoining preverbal subject pronouns to C, and so they began to adjoin to C. This created an asymmetry between preverbal subject pronouns and preverbal lexical subjects, which continued to occupy [Spec, CP]. This meant that the expletive subject pronoun (*ef*), whose semantics prevented it from being modified, always adjoined to C, that is, it was always a D head adjoined to a (now phonologically null C head). This represents the point at which the reanalysis hypothesized above in (37), repeated here as (68), took place.

- (68) [CP [Spec [DP *ef*(*e*)] [C *a*+verb] [TP [T *t*_{verb}] [vP *t*_{verb} [VP [DP subject] [V *t*_{verb}]]]]]
=>
[CP [C *fe*+verb] [TP [DP subject] *t*_{verb} [vP *t*_{subject} *t*_{verb} [VP [V *t*_{verb}]]]]

In the Van Gelderen system, we are in fact dealing with two stages. The first change is the phonological erosion of the particle *a*, which allows the expletive to adjoin to C. Thus, the structure in (69) becomes possible, and is therefore preferred over the input structure in (68). This is not a reanalysis, since both structures are generated by the grammar, but (69) is preferred in performance due to the Head Preference Principle.

- (69) [CP [C [D *fe*] [V verb]] [TP [DP subject] *t*_{verb} [vP *t*_{subject} *t*_{verb} [VP [V *t*_{verb}]]]]

A subsequent innovation is the change in the lexical entry of *fe* as a complementizer rather a pronoun, leading to the output structure in (68):

- (70) [CP [C [C *fe*] [V verb]] [TP [DP subject] *t*_{verb} [vP *t*_{subject} *t*_{verb} [VP [V *t*_{verb}]]]]

This change was given above, in (38) and (39), in terms of the lexical entry, as:

(71)	<i>ef</i>	D [Top: Expletive] [phi: 3M.SG] [uCase: ____]	=>	<i>fe / fo</i>	C [Pol: Aff] [Force: Main]
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The hypothesis that the expletive subject is a D element (a pronoun) clearly become less attractive once it fails ever to appear in a specifier position, that is, when structures like the input structure in (68), although grammatical, fail to be generated in practice for reasons of economy. However, it is unclear how exactly the change in lexical entry in (71), both the change in category label and the loss of some features and innovation of others, can be accounted for in terms of the two principles cited above. Some additional aspects of acquisition, perhaps semantic aspects of acquisition, need to be included to account for the changes in the lexical entries.

The reanalysis of argumental (non-expletive) pronouns to create agreeing complementizers, discussed above in section 3.4, can broadly be attributed to Late Merge in Van Gelderen's system. As before, we must assume that preverbal subject pronouns left-adjoin to the verb if they can, and that, with the erosion of the preverbal particles *a* and *y(d)*, they do left-adjoin in most cases in performance. However, in contrast to expletive pronouns, argument pronouns had to merge into thematic positions, in this case, the external argument position, [Spec, vP], and raise to the topic position. We thus have movement of the pronoun in Middle Welsh, as given in the input structure in (72).

(72)	[CP [C [D <i>mi</i> _{subj}] [C \emptyset] [<i>welais</i> _v]] [TP t _{subj} t _v [vP [Spec t _{subj}] [VP t _v ferch]]]]
	=> [CP [C <i>mi+welais</i> _v] [TP t _v [vP [Spec <i>pro</i> _{subj}] t _v [VP t _v ferch]]]]

Late Merge dictates that adults or acquirers will tend to avoid movement of the subject pronoun of the type found in the input structure of (72). Immediately before the change, adults have no choice but to use this movement, since they do not have agreeing complementizers in the grammars, and the pronouns must therefore be arguments of the verb. Children have the option of positing agreeing complementizers, that is, lexical entries that will respect Late Merge, and will therefore do so unless there is compelling evidence against such an analysis. They therefore innovate the output structure in (72), and correspondingly create new lexical entries for agreeing complementizers. Note that Late Merge tells us that the output structure in (72) will be favoured over the input one, and therefore motivates the directionality of change, but does not determine the form of the new lexical entries. As before, the new lexical entries, in addition to losing certain features, also gain some features that were not present in the old lexical entries.

Finally, the loss of complementizer agreement and the generalization of the affirmative complementizers *mi* and *fe* is essentially the loss of features. This is not incorporated within Van Gelderen's system, even though it would normally be seen as part of the ongoing grammaticalization of these items.

4.1.2. Roberts & Roussou (2003)

Another formal approach to grammaticalization is that of Roberts & Roussou (2003). Their approach embodies the intuition that grammaticalization, like much other syntactic change, 'always involves structural simplification' (Roberts and Roussou 2003: 2). The central issue for them then becomes how to capture this idea in formal terms. Roberts & Roussou see grammaticalization as a change in the way in which a functional feature is realized. A language may require a functional feature to be realized phonologically, or may allow it to be null. If it must be realized phonologically, then that requirement may be fulfilled either by merging an element directly to adjoin to that feature, or by moving an element from lower in

the syntactic structure. This creates four possibilities (the asterisk diacritic indicates that the feature must be realized phonologically and the subscript indicates the means by which it is realized):

$$(73) \quad F^*_{\text{Move/Merge}} > F^*_{\text{Move}} > F^*_{\text{Merge}} > F \quad (\text{Roberts and Roussou 2003: 210})$$

Roberts & Roussou argue that the options on the left are marked with respect to options on the right, such that, in the absence of robust cues, the less marked option is taken during language acquisition. The conservative nature of the learner always favours F (zero-realization of the functional feature), so if evidence that leads to one of the other options is not robustly expressed in the trigger experience during child language acquisition, the default is chosen, and there is a shift to right along the hierarchy in (73).

Let us now consider the Welsh data in the context of this model. The creation of the complementizer *fe* from an expletive subject pronoun does not straightforwardly conform to the model. In Middle Welsh, the expletive subject is merged directly into CP, and thereby satisfies the Topic feature on C by Merge, instantiating F^*_{Merge} . The new complementizer *fe* merges directly into C, so we still have F^*_{Merge} . Thus there is apparently no movement to the right on the hierarchy in (73).

Two points are worth making though. After the reanalysis, C no longer bears a Topic feature at all (topicalization is eliminated from the sub-system both semantically and syntactically), so it could be argued that there is a shift from realization of the feature Topic by F^*_{Merge} to its complete elimination, which might be thought of as the endpoint of the hierarchy in (73).

Secondly, a reworking of the analysis of expletive subjects in Middle Welsh is conceivable, such that expletive subjects could be analysed as moving to CP from some lower position. There are various reasons to conclude that the expletive subject does not move from below CP (for detailed argumentation, see Willis 1998: 153–61), but, within a split CP analysis, it could be suggested that the expletive subject moves from a lower specifier position within CP to a higher position. This would allow it to be claimed that the reanalysis of the expletive as a complementizer resulted in the loss of movement, hence a shift from F^*_{Move} to F^*_{Merge} . Such a move would of course also be available to rescue a Van Gelderen style analysis as above.

The creation of the other agreeing complementizers from argumental personal pronouns is more straightforward, and can be seen as a shift from F^*_{Move} or $F^*_{\text{Move/Merge}}$ to F^*_{Merge} . In the initial system, the relevant pronouns are subjects, typically external arguments, and therefore move to CP from an argument position, typically the external argument position [Spec, vP]. In the course of the reanalysis, this movement is lost, and the former pronouns are merged directly into C, hence movement is lost.

In the initial system, movement of the pronoun to CP occurs to value the Topic feature of C. C itself is spelled out as a preverbal particle, *a* or *y(d)*, depending on the value that is assigned to the Topic feature. In the later system, the pronoun, now a complementizer, is merely the spellout of C. For Roberts and Roussou, the most favourable interpretation of this is as a shift from $C^*_{\text{Move/Merge}}$ to C^*_{Merge} : in the initial system, features of C are satisfied by movement of a topic to [Spec, CP] and spellout of the C head is as a preverbal particle (=Merge). In the system after reanalysis, C can be spelled out on its own with no other operations necessary (=Merge).

Looked at from the wider perspective of C, the change therefore fits in with the model. From the narrower perspective of individual features, things are less clear. Consider again the changes in the lexical entries that lead to the emergence of an agreeing complementizer. For Middle Welsh, we posit an entry for a preverbal pronoun such as that in (51), repeated here as (74), and an entry for a preverbal particle as (12), repeated here as (75).

(74) *mi* D
 [phi: 1SG]
 [uCase: ____]

(75) C
 [uTop: ____] (EPP)
 [Pol: Aff]
 [Force: Decl]

After the reanalysis, we just have an agreeing complementizer, the spellout of the features in (76) (also from (51) above).

(76) *mi* C
 [Pol: Aff]
 [Force: Main]
 [u-phi: 1SG]

Presented in this manner, the change is more obviously characterized as the merger of two items, accompanied by failure of children to acquire certain features (the D feature of *mi*, the Case feature of *mi*, the Top feature of C), the failure of children to acquire certain features as interpretable (the phi features of D) or the failure of children to acquire the correct value of certain features (the value of the Force feature of C).

4.2. The emergence of complementizer-agreement systems

Finally, let us consider the Welsh changes against the background of the emergence of agreeing complementizers in the West Germanic varieties mentioned above (section 3.5). Fuß (2004) argues that complementizer agreement in Bavarian dialects, as in (63) above, arose via a reanalysis of a postverbal pronominal subject in inversion contexts. These pronouns had previously cliticized to C as an agreement morpheme adjoined to C:

(77) [CP [Spec Topic] [C' [C C+V+pronoun] [TP [Spec t_{pronoun}] T [vP t_{pronoun}...
 =>

[CP [Spec Topic] [C' [C C+V+Agr] [TP T [vP *pro* ...

(adapted from Fuß 2004: 238)

This led to the innovation of referential null subjects in the varieties in question (Fuß 2004: 222).

The reanalysis set out in (77) is very similar to the reanalysis envisaged for Welsh agreeing complementizers, as in (50), but is different in one crucial respect. It is the mirror image of the Welsh development: in Welsh, a preverbal pronominal subject is reanalysed, whereas in Bavarian a postverbal pronominal subject undergoes reanalysis. This must surely be linked to the fact that, in Welsh, the V2 system overlay an underlying VSO grammar, whereas in Bavarian the V2-system overlay an underlyingly SOV grammar. That is, pronouns are reanalysed only when they appear in otherwise non-canonical positions for the language in question: preverbal pronouns in a VSO language, postverbal ones in an SOV language. This situation is also reminiscent of the reanalysis of subject pronouns as verbal-agreement marked in Buryat, where verbal agreement suffixes grammaticalized via reanalysis of a minority VS order against the background of a basically SOV language (Comrie 1980).

5. CONCLUSION

We have seen that specifier-to-head reanalyses are well attested in the complementizer domain. Although frequently this kind of reanalysis involves *wh* elements that give rise to complementizers, the results in Welsh have been rather different: pronouns in [Spec, CP] were reanalysed as affirmative main-clause agreeing complementizers, and eventually in most dialects as affirmative main-clause complementizers lacking agreement. This article has argued that the emergence of these complementizers can be traced through two distinct changes, each involving the reanalysis of pronouns in [Spec, CP] as C heads. These reanalyses are instances of grammaticalization (pronoun > agreement marker and pronoun > complementizer) and can be considered to involve loss of movement in accordance with Roberts and Roussou's (2003) formal analysis of grammaticalization. The direction of change from specifier to head within the complementizer domain seems to be a strong tendency, although more research is needed to establish whether it is universal.

ABBREVIATIONS FOR TEXTS CITED

- AHL** John Davies (Pen Dâr). 1934. *Atgofion hen lowr: Straeon ac ysgrifau, buddugol yn Eisteddfod Castell Nedd 1934*.
http://kimkat.org/amryw/1_testunau/sion_prys_057_atgofion_hen_lowr_1934_1482k.htm, last accessed 23 July 2007).
- BB18** *Blodeugerdd Barddas o gerddi rhydd y ddeunawfed ganrif*. Ed. E. G. Millward. 1991. Llandybïe: Barddas.
- BD** *Brut Dingestow*. Ed. Henry Lewis. 1942. Llandysul: J. D. Lewis a'i Feibion.
- BTy₁** *Brut y Tywysogyon: Peniarth Ms. 20*. Ed. Thomas Jones. 1941. Cardiff: Gwasg Prifysgol Cymru.
- BTy₂** *Brut y Tywysogyon or The Chronicle of the Princes: Red Book of Hergest Version*. Ed. Thomas Jones. 1955. Cardiff: University of Wales Press.
- BY** *Y Bibyl Ynghymraec*. Ed. Thomas Jones. 1940. Cardiff: Gwasg Prifysgol Cymru.
- CHIG** Mittendorf, Ingo, and Willis, David. Eds. 2004. *Corpws hanesyddol yr iaith Gymraeg 1500–1850. Historical corpus of the Welsh language 1500–1850*. Electronic corpus, University of Cambridge.
<http://people.pwf.cam.ac.uk/dwew2/hcwl/menu.htm>
- CI** Gruffydd, Elis. *Castell yr Iechyd*. Ed. S. Minwel Tibbott. 1969. Cardiff: Gwasg Prifysgol Cymru.
- CLLI** *Cyfranc Lludd a Llefelys*. Ed. Brynley F. Roberts. 1975. Dublin: Dublin Institute for Advanced Studies.
- DE** Darnau o'r Efengylau. Ed. Henry Lewis. *Y Cymmrodor* 31 (1921): 193–216.
- DPO** Evans, Theopilus. 1716. *Drych y prif oesoedd*. Ed. Garfield H. Hughes. 1961. Cardiff: Gwasg Prifysgol Cymru.
- G** *Ystoria Gereint Uab Erbin*. Ed. Robert L. Thomson. 1997. Dublin: Dublin Institute for Advanced Studies.
- GN** Roberts, Ellis. 1769. *Llyfr enterlute newydd wedi gosod mewn dull ymddiddanion rhwng gras a natur*. Warrington: William Eyres.
- HGC** *Casgliad o hanes-gerddi Cymraeg*. Ed. anon. 1903. Cardiff: Cymdeithas Llen Cymru.
- HHO** Williams, Thomas. 1762. *Hanesion o'r hen oesoedd*. London: W. Roberts for Mr. Owen.
- KA** *Kedymdeithyas Amlyn ac Amic*. Ed. Patricia Williams. 1982. Cardiff: Gwasg Prifysgol Cymru.
- KLIB** Salesbury, William. 1567. *Kynniver Llith a Ban*. Ed. John Fisher. 1931. Cardiff: University of Wales Press.
- LIADC** Jones, J. 1743. *Llythyr o annerch difrifol a charedig*. Y Mwythig [Shrewsbury]: Thomas Durston.
- LITA** Llwyd, Morgan. 1653. *Llyfr y Tri Aderyn*. Ed. anon. 1974. Cardiff: Gwasg Prifysgol Cymru.
- LIWD** *Llyfr o weddiau duwiol yn cynwys ynddo mwy na saith ugain o weddiau ar amryw achosion*. 1749. Y Mwythig [Shrewsbury]: Thomas Durston.
- MDD** Fisher, Edward. 1651. *Madruddyn y difynyddiaeth diweddaraf* [The marrow of modern divinity]. Trans. Siôn Treredyn [John Edwards]. London: T. Mabb a A. Coles.
- MIG** Llyma Vabinogi Iessu Grist. Ed. Mary Williams. *Revue Celtique* 33 (1912): 184–248.

- P* *Historia Peredur vab Efwrawc*. Ed. Glenys W. Goetinck. 1976. Cardiff: Gwasg Prifysgol Cymru.
- PAC* Wynne, Elis, and Wynne, Edward. 1755. *Prif addysc y Cristion*. Y Mwythig [Shrewsbury]: J. Cotton a J. Eddowes.
- PKM* *Pedeir Keinc y Mabinogi*. Ed. Ifor Williams. 1930. Cardiff: Gwasg Prifysgol Cymru.
- SG* *Selections from the Hengwrt mss. preserved in the Peniarth library*. Vol. ii.: *Y Seint greal, being the adventures of King Arthur's knights of the Round table*, Ed. Robert Williams. 1876. London: T. Richards.
- WDS* Suggett, Richard F. 1983. An analysis and calendar of early modern Welsh defamation suits. SSRC Final Report (HR 6979).
- WBC* Owen, David. *Wil brydydd y coed*. Ed. Thomas Jones. 1949. Cardiff: Gwasg Prifysgol Cymru.
- YCM* *Ystorya de Carolo Magno*. Ed. Stephen J. Williams. 1930. Cardiff: Gwasg Prifysgol Cymru.
- YDG* Hughes, Jonathan. [18th c. (composed 1744)]. Enterlute histori y Dywysoges Genefetha. National Library of Wales, Ms. Cwrtmawr 120A.
- YLhH* Price, John. 1546. *Yny lhyvyr hwnn*. Ed. John H. Davies. 1902. Bangor: Jarvis & Foster.
- YRW* [?Parry, Richard]. 1812 [1736]. *Ystori Richard Whittington, yr hwn a fu dair gwaith yn arglwydd maer Llundain*. Caerfyrddin: J. Evans.
- YSG* *Ystoryaeu Seint Greal*. Ed. Thomas Jones. 1992. Cardiff: Gwasg Prifysgol Cymru.

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² In a more articulated CP domain, the verb would move to adjoin to the head of a topic phrase (TopP) in a low position within the CP domain, with the particle as the head of this phrase (Top⁰) and the topic phrase as its specifier.

³ This assumption is based on the observation that no material may intervene between the particle and the verb, and, judging by the fact that the particle and verb are often written as a single word in Middle Welsh manuscripts, the particle was either proclitic to the verb or should be interpreted as a prefix. However, little rests on this assumption, and it would be a relatively straightforward matter to amend the analysis so that the verb raised to the head of a functional projection immediately below the particle, thereby avoiding right-adjunction, which (following Kayne 1994) is often argued to be impossible.

⁴ A third value, [Topic: predicate] is also necessary to incorporate fronting of predicate adjective phrases and noun phrases, which follow a different syntactic pattern lacking any particle (for further details, see Borsley et al. 2007: 288, Richards 1938: 108, Willis 1998: 52).

⁵ These complications specifically involve adverbials that intervene between the topic and the verb, as in (i), or precede the topic, as in (ii).

- (i) Ac ef, wedy kleuychu ohonaw, a gauas arwyd
and 3M.SG.IND.SIM PERF fall-ill.INF of.3M.SG PRT get.PAST.3SG sign
 yechyt y gan Ysaïas...
health from with Isaiah
 ‘And he, having fallen ill, received a sign of health from Isaiah...’ (BY 34)
- (ii) Ac yna ti a wely y dreigeu yn ymlad...
and then 2SG.IND.SIM PRT see.PRES.2SG the dragons PROG fight.INF
 ‘And then you will see the dragons fighting...’ (CLILI 100–1)

The structural topic is clearly identified by the particle, which is *a* in both cases. This shows that subject pronouns, *ef* ‘he’ and *ti* ‘you’ respectively, are in the topic position, and the adverbials *wedy kleuychu ohonaw* ‘having fallen ill’ and *yna* ‘then’ are in some adjoined position. Although the verb appears to be in third position in each of these cases, they do not invalidate the V2 rule, but merely demonstrate that some elements are ignored by it.

⁶ The pronouns in Table 1 may fulfil other grammatical roles, such as direct object, possessor or object of a preposition. In this roles, there are, additionally, genitive and accusative clitics. These are not relevant for current purposes and have been omitted in Table 1 and further discussion (for further details, see Evans 1964).

⁷ Since they always co-occur with agreement morphology, traditional Welsh grammar has considered affixed pronouns not to be arguments of their verbs. Under this view, in a sequence of a verb followed by a subject pronoun (e.g. *gwelaf i* see.PRES.1SG 1SG.AFF.SIM), the verbal ending *-af* is the subject and the pronoun *i* itself is not in subject position, but rather ‘auxiliary’ (cf. Morris-Jones 1913: 280). Most work in generative grammar has taken the pronoun to be the subject here, positing a null subject *pro* for cases where the pronoun is omitted (e.g. *gwelaf* ‘I see’). However, some recent generative work on null subject languages (for instance, Alexiadou and Anagnostopoulou 1998) has revived the more traditional position. In the current exposition, affixed pronouns are assumed to be actual arguments of the verb.

⁸ The change from *ti* to *thi*, for ‘you (SG)’ in (17)b., is triggered by the preceding conjunction *a* ‘and’ (aspirate mutation).

⁹ The affixed form of the 2SG pronoun is *ti* rather than *di* in example (18)a. because of a regular rule of assimilation when the previous word (the verb) ends in /t/.

¹⁰ A reader for *TPS* suggests that the conjoined noun phrases in these examples are not subjects, but in apposition to the subject expressed in the ending of the verb. Although apposition undoubtedly exists in Middle Welsh, all the clear cases of it (such as those cited by Evans 1964: 50–1) involve an overt pronoun followed by a conjoined noun phrase. More significantly, parallel examples in Modern Welsh, such as (i), do not involve an intonational break between the verb and the conjoined noun phrase, and so clearly do not amount to apposition.

(i) Gwelais i a Megan geffyl.
see.PAST.1SG 1SG.AFF.SIM and Megan horse
 ‘Megan and I saw a horse.’ (Borsley et al. 2007: 205)

Therefore the Middle Welsh examples cited here are better treated as conjoined noun phrases in subject position.

¹¹ As in (17)b. above, the form *thi* ‘you (SG)’ is due to the preceding conjunction *a* ‘and’.

¹² Although there is no case morphology on nouns in Welsh, the objects of non-finite verbs appear in the genitive case in some other Celtic languages, specifically Irish and Scots Gaelic, a fact traditionally attributed to the nominal nature of non-finite verbs (‘verbnouns’) in Celtic languages.

¹³ The form of the affixed pronoun is *ti* rather than *di* in (26) because of a regular phonological rule devoicing a sequence of two voiced stops, here /weled/ + /di/ > /welet ti/ (provoction) (see Evans 1964: 13).

¹⁴ Another possibility, suggested by a reader for *TPS*, is that this is an orthographic phenomenon, with use of *fi* in this context being modelled on its use in the present tense after a verb ending in *-f*. Effectively, this would mean viewing it as a hypercorrection. This cannot be excluded, but use of *fi* after a non-present-tense verb is quite widespread, and it emerges at the same time as pronoun double of the expected *mi ... i* type. Both these facts point against it being purely orthographic.

¹⁵ In (48)a., the conjunctive affixed form appears in the orthographic variant *finnau* rather than *innau* because the previous word (verb) ends in *-f/v*.

¹⁶ Technically, *mi* is the spellout of C with the relevant features given in (51), hence the appearance of valued uninterpretable phi-features in the lexical entry given. The lexical entry is actually for C, with unvalued phi-features. If these features are valued as 1SG, then the spelled out form will be *mi*.