Abstract

Middle Welsh is a VSO language with the verb before the subject in all kinds of finite clause. However, positive declarative main clauses normally show verb-second order with a constituent of some kind before the finite verb. There are questions about the nature of this restriction. There are also questions about subject-initial sentences, which show surprising agreement properties, whether the subject is a topic or a focused constituent. All these questions can be given plausible answers within HPSG.

1. Introduction

Welsh has always been a VSO language with the verb before the subject in all kinds of finite clause. However, in Middle Welsh, positive declarative main clauses normally show verb-second order with a constituent of some kind before the finite verb. Thus, the Welsh Bible, which reflects late Middle Welsh usage, has (1), where Modern Welsh would have (2). (All Middle Welsh examples are taken from Willis 1998 or Meelen 2016, and the primary text is given in brackets.)

(1) Yr Ysbryd Glân a ddaw arnat ti.
the Ghost Holy PRT come.FUT.3SG on.2SG you
'The Holy Ghost will come upon you.' (New Testament Luke 1:34–35)

(2) Daw 'r Ysbryd Glân arnat.
come.FUT.3SG the Ghost Holy on.2SG
'The Holy Ghost will come upon you'

Examples like (1), in which the initial constituent is interpreted as a topic, are known in traditional Welsh grammar as abnormal sentences (*brawddeg annormal* in Welsh), and they are a feature of Welsh Bible translations, dating from the late Middle Welsh period. As Meelen (2016: 1) notes, quoting Evans (1990), the result was that

> [t]o many people in Wales it was utterly embarrassing to hear "Jesus and Job speaking 'bad Welsh'".

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A question obviously arises about the constraint responsible for this verb-second order, I will argue that it is the consequence of a negative constraint, excluding a finite verb from initial position in a class of clauses.

There are also questions about the properties of subject-initial sentences, both abnormal sentences, where the subject is a topic, and so-called mixed sentences (*brawddeg gymysg* in Welsh), where the subject is focused. I will argue that both are the realization of phrase types which are not head–filler phrases but share certain properties with such phrases. Given an appropriate type hierarchy, it is not difficult to capture the similarities and differences in this area.

The paper is organised as follows: In section 2, I set out the main facts that need to be considered. Then, in section 3, I outline an analysis of mixed sentences, and in section 4, I provide an analysis of abnormal sentences. In section 5, I consider how the verb-second requirement should be handled. Finally, in section 6, I conclude the paper.

2. Basic data

In this section, I will highlight the important properties of abnormal and mixed sentences and also say something about verb-initial clauses. This will lead to a statement of the questions that are addressed in the rest of the paper.

Abnormal sentences, in which the verb is preceded by a topic, may have a subject, a complement, or an adjunct in initial position, as the following illustrate:

(3) A [’r guyrda] a doethant y gyt.
and the nobles PRT come.PAST.3PL together
‘And the nobles came together.’ (PKM 90.27)

(4) a [’r llall] a adawd yghyfeir y vorwyn.
and the other PRT leave.PAST.3SG for the maiden
‘and the rest he left for the maiden.’ (Per 10.28)

(5) Ac [yn diannot] y doeth tan o ’r nef.
and PRED immediate PRT come.PAST.3SG fire from the heaven.
‘And without delay came fire from the sky.’ (Dewi 0086.218)

In each case, the initial constituent is followed by a particle. Roughly, this is *a* if the initial constituent is an argument and *y* if it’s an adjunct. At one time, a number of researchers (e.g. MacCana 1973, 1991 and Fife and King 1991) proposed that abnormal sentences were just a literary phenomenon. However, Willis (1998: 1.3.3) and Meelen (2016) argue that they are an ordinary feature of the language. They show that they are not confined to literary texts. They

also note that a similar verb-second requirement survives in Modern Breton (as discussed e.g. in Borsley and Kathol 2000). Thus, these sentences are abnormal from the standpoint of Modern Welsh, but not in any other sense.

In (3), the verb agrees with the preceding subject, which is a topic. This is unexpected given that agreement in Middle Welsh, as in Modern Welsh, generally only occurs with pronouns. Normally, the default third person form of the verb appears with a non-pronominal NP, as in the following:[1]

(6) Yna y doeth kennadeu.
Then PRT come.PAST.3SG messengers
'Then messengers came.' (PKM 79 27)

Thus, sentences like (3) are doubly abnormal.

Contrasting with the abnormal sentences just considered are mixed sentences such as (7), in which the initial constituent is focused.

(7) Mi a 'e heirch.
I PRT 3SGF seek.PRES.3SG
'It is I who asks for her.' (WM 479.24)

Here, there is no agreement even though the initial NP, which is understood as a subject, is a pronoun. The default third person form of the verb appears. This also is unexpected.

We have seen that positive declaratives show verb-second order. Sentences which are not positive or not declarative are normally verb-initial. In negative main clauses the verb is usually only preceded by the negative particle *ny*.

(8) Ny welei ef y twrwf rac tywyllet y nos.
NEG see.PAST.3SG he the commotion as darkness the night
'He could not see the commotion as the night was so black.' (PKM 22.23)

A negated verb may be preceded by a topic, as in (9), but this is not required.

(9) A hynny ny thygywys idaw
And that NEG avail.PAST.3SG to.3SGM
'And that didn't work for him.' (PKM 11. 2)

In interrogative clauses, the verb is only preceded by the interrogative particle *a*.

[1] For detailed discussion of the facts of Modern Welsh, see Borsley (2009).

(10) A wydyat llad a chledyf?
QU-PRT know.PRES.2SG kill.INF with sword
'Do you know how to kill with a sword?' (Peredur 0003.335)

There is some evidence that preverbal particles form a complex verbal constituent with the immediately following verb in Modern Welsh (Harlow 1983, Willis 1998: 70–71, Borsley and Jones 2005: 57). Assuming Middle Welsh is the same, negative and interrogative examples like (8) and (10) have a finite verbal constituent in clause initial position.

Imperatives such as the following have the imperative verb in initial position with nothing preceding:

(11) Dos titheu ar Arthur y diwyn dy wallt.
go.IPV.2SG you to Arthur to cut.INF 2SG hair
'Go to Arthur to cut your hair.' (CO 58)

But it could be that imperative verbs are not finite. So it is not clear how important such examples are.

There is one important class of verb-initial positive declaratives. This is examples where the verb is a form of the copula, such as the following:[2]

(12) Mae uyg kallon yn tirioni vrthyt.
be.PRES.3SG 1SG heart PROG grow-fond.INF with.2SG
'My heart inclines toward you.' (CO 0004.196)

Some other apparent examples of verb-initial positive declaratives will be discussed in section 5, but it will be argued that they are only apparent examples.

The facts set out above raise three main questions:

- What is the nature of the Middle Welsh verb-second requirement?
- Why do verbs agree with any preceding subject which is a topic in an abnormal sentence?
- Why do verbs not agree with any preceding subject which is focused in a mixed sentence?

The nature of the verb-second requirement cannot be addressed without a clear understanding of both abnormal and mixed sentences. Therefore, we need to consider these first and then turn to the nature of verb-second.

[2] Parallel examples are acceptable in Modern Breton (Borsley and Kathol 2000: 666).

3. Mixed (or cleft) sentences

I will first consider mixed sentences because they are fairly straightforward. They survive in Modern Welsh, in which they are often called cleft sentences, and essentially the same analysis seems appropriate for Middle Welsh as for Modern Welsh.

In Borsley (2015, 2020), I argue that the basic properties of Modern Welsh clefts can be accounted for on the assumption that the initial constituent is not a filler but one term of a hidden identity predication, and the same approach can be applied to Middle Welsh. An English example such as (13) shows that the focused constituent and the gap in a cleft may have different properties.

(13) It's me that likes beer.

Hence, there is no reason within this approach for the gap within the second constituent to have the same properties as the initial constituent. and no reason to expect agreement in (7). In Middle Welsh, as in Modern Welsh, the hidden identity predication can be negated by an initial negative particle, as shown in (14).

(14) Nyt y dyn a doeth.
NEG the man PRT come.PAST.3SG
'It was not the man who came.' (Meelen 2016: 200)

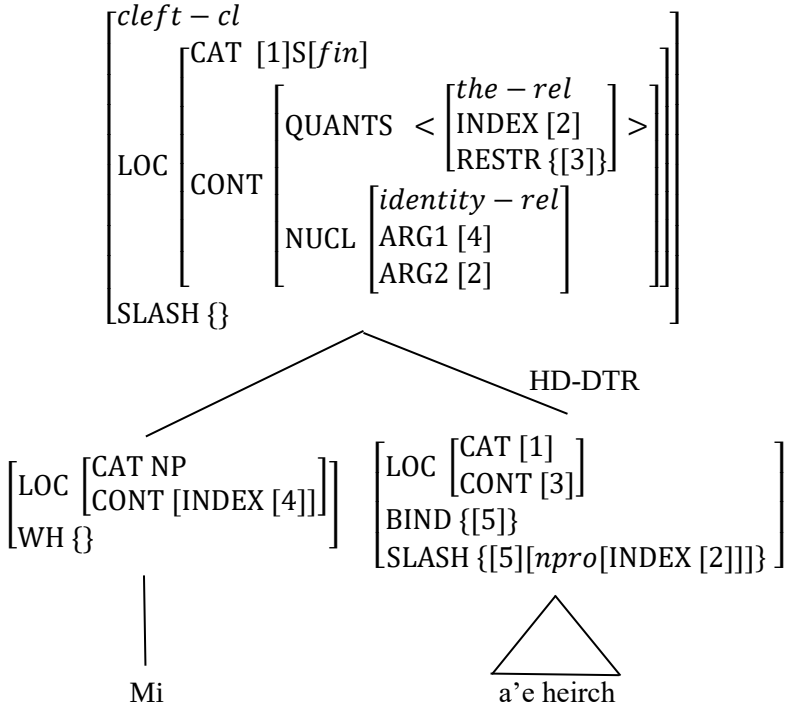
Meelen (2016: 119) points out that early Middle Welsh clefts had a form of the copula preceding the focused constituent, as in (15).

(15) Ys mi a 'e heirch.
be.PRES.1SG me PRT 3SGF seek.PRES.3SG
'It is I who seeks her' (WM 479.29)

It seems, then, that the identity interpretation originally stemmed from a lexical element but subsequently became a property of the construction.

Within this approach, the mixed/cleft sentence in (7) can be assigned the structure in (16). The BIND feature here is rather like feature of the same name in Bouma *et al*. (2001) and picks out one member of the SLASH set of a daughter (typically the only member) for some kind of special treatment. Apart from this, the structure has two important properties. Firstly, the CONTENT value of the mother makes it clear that the second daughter is interpreted as a definite description and identified with the first daughter. Thus, the two daughters are interpreted as the two terms of an identity predication. Secondly, the single member of the BIND and SLASH sets is non-pronominal. This ensures that the gap is non-pronominal and hence does not trigger agreement.

(16)

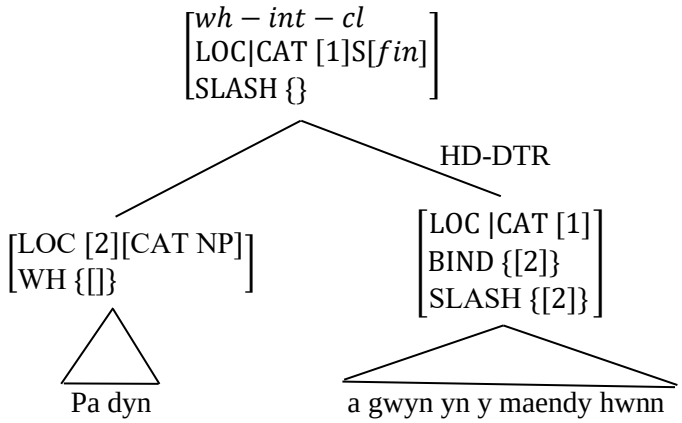


Although the initial constituent of a cleft is not a filler, clefts share properties with head–filler phrases, e.g. *wh*-interrogatives such as (17).

(17) Pa dyn a gwyn yn y maendy hwnn?
which man PRT lament.PRES.3SG in the prison this
'Which man laments in this prison?' (CO 914)

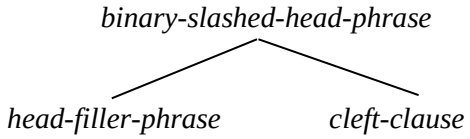
Ignoring semantics, this will have a structure of the following form, in which the *wh*-phrase is a filler:

(18)



Both types of clause have two daughters, a phrase and a clause with a non-empty SLASH value. This can be captured by treating them as two subtypes of a type *binary-slashed-head-phrase*.

(19)



For *binary-slashed-head-phrase*, we can propose the following constraint:

(20) *binary-slashed-head-phrase* $\Rightarrow$

$$\begin{bmatrix} \text{SS}\left[\text{SLASH}\ [1]\right] \\ \text{HD}-\text{DTR}\ [2] \\ \text{DTRS} < [] > \oplus < [2] \begin{bmatrix} clause \\ \text{SS} \begin{bmatrix} \text{BIND}\ \{[3]\} \\ \text{SLASH}\ \{[3]\} \cup [1] \end{bmatrix} \end{bmatrix} > \end{bmatrix}$$

This ensures that a binary–slashed–head phrase has two daughters, and that the second is a head which is a clause with one SLASH set member which is not part of the SLASH set of the mother.[3] This will be simplified later. For head–filler phrases, we can propose the constraint in (21).

(21) *hd-fill-ph* $\Rightarrow$ [DTRS $<$ [SS[LOC[1]]], [SS[BIND {[1]}]] $>$]

This requires the first daughter to be a filler with a LOCAL value identical to the single member of the BIND set of the second daughter. For clefts, we can propose the constraint in (22).

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[3] Without BIND, problems could arise where a SLASH set has more than one member. The member of the SLASH set of the head which is not a member of the SLASH set of the mother would not necessarily be the one that receives a special treatment in some other way. This is a flaw in the analysis outlined in Borsley (2020) for Modern Welsh clefts.

(22) *cleft-clause* ⇒

$$\left[\begin{array}{l}\text{SS|LOC}\left[\text{CONT}\left[\begin{array}{l}\text{QUANTS} < \left[\begin{array}{l}the-rel\\ \text{INDEX}\,[1]\\ \text{RESTR}\,\{[2]\}\end{array}\right] > \oplus \text{L}\\ \text{NUCL}\left[\begin{array}{l}identity-rel\\ \text{ARG1}\,[3]\\ \text{ARG2}\,[1]\end{array}\right]\end{array}\right]\right]\\ \text{DTRS} < \left[\text{SS|LOC|CONT}\left[\text{INDEX}\,[3]\right]\right],\\ \qquad\left[\text{SS}\left[\begin{array}{l}\text{LOC}\left[\begin{array}{l}\text{CAT|HEAD|VFORM}\,fin\\ \text{CONT}\,[2]\end{array}\right]\\ \text{BIND}\,\{[\text{CONT}\,npro[\text{INDEX}\,[1]]\}\end{array}\right]\right] >\end{array}\right]$$

This ensures that a cleft clause has two daughters which are interpreted as the two terms of an identity predication. It also ensures that the second daughter has a non-pronominal NP in its BIND set, and hence that any gap is non-pronominal and so does not trigger agreement.

Thus, it is not too hard to provide an account of mixed/cleft sentences which captures both their distinctive properties and the properties they share with head–filler phrases such as *wh*-interrogatives.

4. Abnormal sentences

As we have noted, the main challenge with abnormal sentences is to ensure that the verb shows agreement with a preceding subject even if it is non-pronominal. I will propose that this is because they, like mixed sentences, are not head–filler phrases when the initial constituent is nominal (although this constituent might be called a 'quasi-filler').

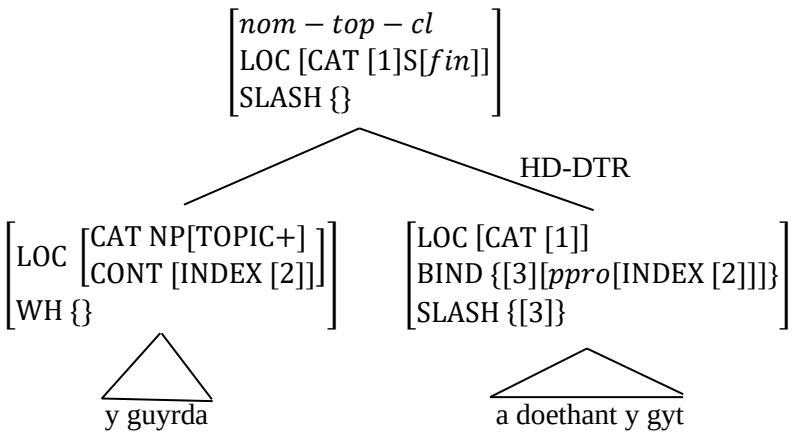
Since agreement in Middle Welsh normally only occurs with pronouns, some special constraint must be responsible for agreement between a verb and a preceding subject in an abnormal sentence. There are two possible approaches: either (a) the verb agrees directly with the preceding subject, or (b) it agrees with a subject gap and that agrees with the visible subject. Meelen (2016: 6.4) takes the former approach. However, as we have seen, the initial constituent in an abnormal sentence can have various roles: subject, object or adjunct. It is not obvious how a verb could be made to agree with a preceding topic just in case it is interpreted as its subject.[4] This suggests that the verb agrees with a subject gap. One way to ensure this is to require the SLASH

[4] See Borsley 2018 for further discussion.

value in a nominal topic clause to be pronominal. This will mean that the gap in such a clause is pronominal, and if it is in subject position, it will trigger agreement like any other pronominal subject.

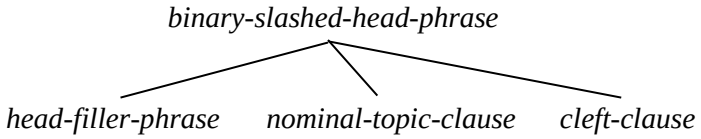
We can do this by assuming that these clauses are not head–filler phrases but the realization of another subtype of *binary-slashed-head-phrase*, which we can call *nominal-topic-clause*, in which a topic NP is coindexed with a pronominal BIND value. On this approach, (3) will have this structure:

(23)



The type hierarchy can be extended as follows:

(24)



For nominal topic clauses, we can propose the constraint in (25):

(25) *nominal-topic-clause* ⇒

$$\begin{bmatrix}\text{DTRS} < [\text{SS}[\text{LOC NP}[\text{TOPIC+}, \text{INDEX } [1]]]], \\ \quad [\text{SS}[\text{BIND } \{[\text{CONT } ppro[\text{INDEX } [1]]]\}]] >\end{bmatrix}$$

This says that the first daughter of a nominal topic clause is a nominal topic and that the second daughter has a BIND set whose single member is a coindexed pronominal.[5] The coindexing entails that the two elements have the same person, number, and gender. If the first daughter is non-pronominal, they

[5] Borsley (2015: 1004) proposes that all nominal SLASH set members are non-pronominal in Modern Welsh. The analysis of abnormal sentences outlined here means that this position is not available in Middle Welsh.

will differ in one respect. If the first daughter is pronominal, they will be identical in every respect and the first daughter will resemble a filler (hence the term 'quasi-filler'). In either case, a gap will be pronominal, and if it is in subject position, there will be agreement.

Here, then, we have an account of abnormal sentences which captures the fact that the verb agrees with a preceding subject even if it is non-pronominal. It also captures the similarities between a nominal topic clause and both mixed sentences and head–filler phrases by treating them as subtypes of the type *binary-slashed-head-phrase*. What about non-nominal topic clauses such as (5)? As far as I can see, there is no reason why they should not be analysed a type of head–filler phrase. It is just nominal topic clauses that require a special treatment.

5. The nature of verb-second

Having outlined analyses of both mixed and abnormal sentences, we can consider how the Middle Welsh verb-second requirement should be analysed. There are two logically possible types of constraint. One could have a positive constraint requiring certain clauses to have a certain property or one could have a negative constraint requiring certain clauses not to have a certain property. After considering constraints of the first kind, I will argue for a constraint of the second kind.

We have argued in the preceding sections that neither mixed sentences nor nominal topic clauses are head–filler phrases. Clearly, then, the verb-second requirement could not be a requirement that positive declarative main clauses must be a head–filler phrase. However, these clauses, like head–filler phrases, involve an unbounded dependency, and on fairly standard HPSG assumptions, this means that the highest verb has a non-empty SLASH value. Hence, one might propose that a finite verb other than the copula heading a positive declarative main clause must have a non-empty SLASH value. Abnormal sentences and mixed/cleft sentences will conform to this constraint, but verb-initial positive declarative main clauses will not.

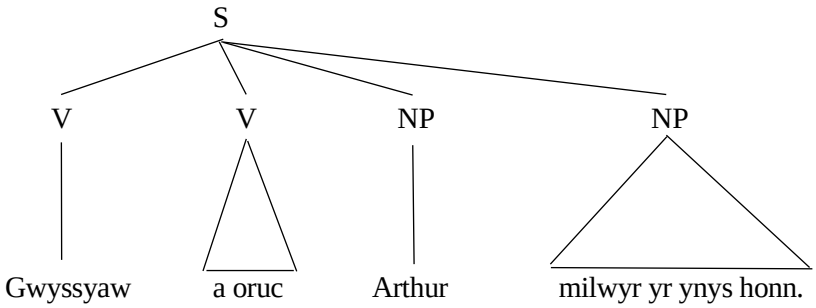
This approach seems quite promising, but two sorts of example pose problems. Firstly, there are examples with an initial non-finite verb separated from its complement, such as the following from Willis (1998: 52):

(26) Gwyssyaw a oruc Arthur milwyr yr ynys honn ...
summon.INF PRT do.PAST.3SG Arthur soldiers the island this
'Arthur summoned the soldiers of this island...' (CO 922-3)

As with similar examples in Modern Breton (Borsley & Kathol 2000), there is no reason to think that these involve an unbounded dependency. Rather, it is plausible to analyse them as argument composition structures, in which a finite

auxiliary verb takes as its complements a non-finite verb and whatever complements the latter requires, giving a structure of the following form:

(27)



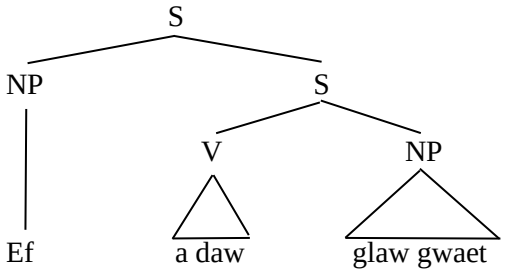
If this is right, the finite verb will not have a non-empty SLASH value.

Secondly, there are examples with an expletive pronoun in initial position, such as (28):

(28) Ef a daw glaw gwaet …
it PRT come.FUT.3SG rain blood
'There will come a rain of blood …' (BB 125.5)

Willis (1998:128) reports that initial expletives are rare in early texts and restricted to unaccusative contexts, but common in later texts and not restricted in this way. The obvious structure is something like the following:

(29)



Again, there is no reason to think that there is an unbounded dependency here, and so no reason to think that the finite verb has a non-empty SLASH value. This suggests that a different approach is required.

As an alternative, one might propose that a finite verb other than the copula in a positive declarative main clause must be preceded by a phrase of some kind, including an expletive, or a non-finite verb. On the face of it, this would allow mixed sentences, abnormal sentences, and sentences with an expletive or a non-finite verb in initial position, while excluding examples with a finite verb in initial position. However, there is no easy way to formalise this

restriction. It would be easy enough if all these elements were sisters of the finite verb, but probably only an initial finite verb is.[6]

A rather different alternative involves a negative constraint. Instead of stipulating that certain clauses must have a certain property, one can stipulate that they must not have a certain property. In the present case, the property is having a finite verb other than the copula in clause-initial position. There are some complications here, but it is not too difficult to develop an account along these lines.

An analysis obviously requires a way to distinguish standard verbs from the copula. Following Bonami *et al*. (2016) and Borsley (2019), I assume a feature LID whose value is unique to each distinct lexeme, the words that realize it, and the phrases that they head, and l assume that *standard-verb* is a supertype of the LID values of all standard verbs while the copula is [LID *copula*]. If we assume also that main clauses are [ROOT +] and positive clauses [POL(ARITY) *pos*(*itive*)] and that the order of elements in the DTRS list of a clause corresponds to the observed order, we might propose the following constraint for Middle Welsh:

(30) $\left[\begin{array}{l} declarative-clause \\ \text{SS|LOC|CAT}\left[\text{HEAD}\left[\begin{array}{l}\text{VFORM } fin \\ \text{ROOT} + \\ \text{POL } pos\end{array}\right]\right] \\ \text{DTRS} < [1], \ldots > \end{array}\right] \Rightarrow$

[1] ≠ [SS|LOC|CAT|HEAD [LID *standard-verb*, VFORM *fin*]]

This says that the first daughter of a finite positive declarative main clause may not be a finite standard verb. It rules out a finite standard verb in initial position in such clauses but allows such a verb in other types of clause and allows other clause-initial constituents.

This approach looks promising, but there is a problem. As analyzed above, both abnormal sentences and mixed/cleft sentences will involve a structure of the following form:

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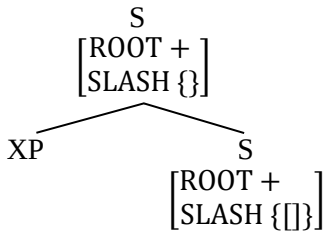
6 The situation might be different if one assumed order domains since within such an approach, the various elements that can precede the finite verb may be in the same order domain as the verb. An analysis of this kind is proposed for Modern Breton in Borsley and Kathol (2000). However it seems preferable to avoid an appeal to order domains if possible.

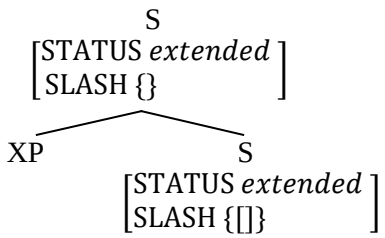
(31)



Expletive-initial examples like (28) will involve a similar structure in which both Ss are [SLASH {}]. In these clauses, the lower S is a head and hence, on standard assumptions, is [ROOT+] like the higher S. But clearly the lower S can and normally will have a finite verb as its first daughter.[7] One response to this problem would be to stipulate that the head in such clauses is always [ROOT –]. But this is only possible in a version of HPSG assuming a default Head Feature Principle, so it seems better to look for a different solution.

An alternative solution is suggested by Bonami *et al*. (2016), who propose that Modern Welsh has not a two-way distinction between main and subordinate clauses, but a three-way distinction between simple main, simple complement, and unbounded dependency clauses, encoded as the value of a feature STATUS. For Middle Welsh, we can propose that the third type is not unbounded dependency clauses, but extended clauses in which at least normally a basic clause combines with a preceding sister of some kind. This will include both unbounded dependency clauses and clauses with an initial expletive. It will give (32) instead of (31).

(32)



Assuming that simple non-extended main clauses are [STATUS *main*], we can reformulate (30) as follows:

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[7] The first daughter of the lower S will not always be a finite verb. It can also be what Willis (1998: 3.3.2) calls an interposed adverb, such as *yna* 'then' in (i).

(i) A Lawnslot yna a dywawt ...
And Lancelot then PRT said
'And Lancelot then said ...' (YSG 121)

(33) $$\begin{bmatrix} declarative-clause \\ \text{SS|LOC|CAT} \begin{bmatrix} \text{HEAD} \begin{bmatrix} \text{VFORM } fin \\ \text{STATUS } main \\ \text{POL } pos \end{bmatrix} \end{bmatrix} \\ \text{DTRS} < [1], \ldots > \end{bmatrix} \Rightarrow$$

[1] ≠ [SS|LOC|CAT|HEAD [LID *standard-verb*, VFORM *fin*]]

This says that the first daughter of a simple finite positive declarative main clause may not be a finite standard verb. It will rule out a finite standard verb in initial position in simple finite positive declarative main clauses, but have no effect on the lower S in (32) because it is not [STATUS *main*]. It will allow a finite standard verb in initial position in negative declaratives, interrogatives, and imperatives. It will also allow a non-finite standard verb in initial position in positive declarative main clauses. This is relevant not only to examples like (26) but also to examples with an initial non-finite verb which is the only verb in the sentence, such as the following:

(34) Dyuot Caswallawn am eu penn a llad y
come.INF Caswallawn about 3PL head and kill.INF the
chwegwyr.
six.men
'Caswallon fell upon them and killed the six men.' (CO 4)

(35) A chaffael mab ohonu trwy weti y wlad.
and get.INF son from.3PL through pray.INF the country
'And through the country's prayers they got a son.' (CO 4)

(36) Canu englyn idaw ynteu yna.
sing.INF englyn to.3SGM him then
'He sang an englyn then' (PKM 90.9)

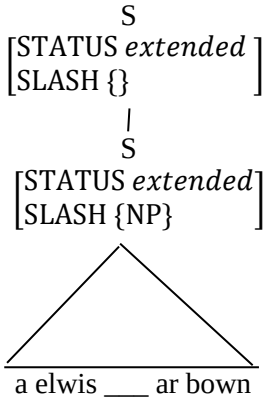
There are two sorts of example here. In (34) the subject immediately follows the verb while in (35) and in (36) it takes the form of a PP following the object, headed by *o* 'from' in (35) and by *i* 'to' in (36). The interpretation is always past tense. (See Meelen 2016: 4.3.6 for discussion of such examples.) This analysis will also, of course, allow a topic (as in (1) and (3)–(5)), a focused constituent (as in (7)), or an expletive pronoun (as in (28)) in initial position.

There are some further acceptable verb-initial clauses which might seem problematic for this approach, e.g. the bracketed second conjunct in (37).

(37) … ac yna y kyuodes sabot ac [a elwis ar
and there PRT arise.PAST.3SG Sabot and PRT call.PAST.3SG on
bown]
Bown
'And then Sabot arose and called on Bown …' (YBH 2825-8)

However, Willis (1998: 4.2) argues that such clauses involve an unexpressed topic and an unbounded dependency of some kind. One way to handle such examples would be to assume that they have a phonologically empty topic. This would make them just like examples with an overt topic. However, there is an alternative approach which doesn't require a phonologically empty element. Following Müller's (2014: 101) analysis of similar German 'topic-drop' sentences, one can analyse these examples as involving a unary branching structure in which an S[SLASH {}] has a single daughter, which is an S[SLASH {NP}], as in (38).

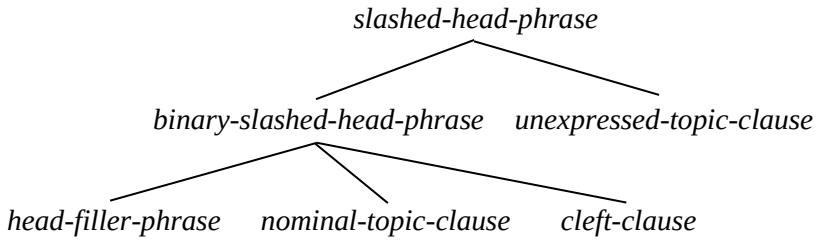
(38)



Since this structure is [STATUS *extended*], it will be unaffected by the constraint in (33). (Note that this means that the lower S in an extended clause isn't always preceded by a sister of some kind.)

This structure can be assigned to a type *unexpressed-topic-clause*. Apart from having just a single daughter (which is a head), this will be quite similar to the type *binary-slashed-head-phrase* introduced above. The similarities can be captured by treating them as two subtypes of a type *slashed-head-phrase*, giving the extended type hierarchy in (39).

(39)



The main properties associated with *binary-slashed-head-phrase* in (20) above can now be assigned to *slashed-head-phrase*, as follows:

(40) *slashed-head-phrase* ⇒

$$\begin{bmatrix} \text{SS} \begin{bmatrix} \text{LOC|CAT|HEAD[STATUS } \textit{extended}] \\ \text{SLASH [1]} \end{bmatrix} \\ \text{HD} - \text{DTR [2]} \\ \text{DTRS L} \oplus < [2] \begin{bmatrix} \textit{clause} \\ \text{SS} \begin{bmatrix} \text{BIND } \{[3]\} \\ \text{SLASH } \{[3]\} \cup [1] \end{bmatrix} \end{bmatrix} > \end{bmatrix}$$

This ensures that a slashed–head phrase is [STATUS *extended*] and has a head daughter which is a clause with one SLASH set member which is not part of the SLASH set of the mother. It allows but does not require other pre-head daughters. Both *binary-slashed-head-phrase* and *unexpressed-topic-clause* will be subject to quite simple constraints, as follows:

(41) *binary-slashed-head-phrase* ⇒ [DTRS <[*phrase*]> ⊕ <[]>]

(42) *unexpressed-topic-clause* ⇒ [DTRS <[]>]

The former ensures that a binary–slashed–head phrase has two daughters (the second of which is a head as a result of the constraint on *slashed-head-phrase*). The latter ensures that an unexpressed–topic clause has a single daughter (which is a head as a result of the constraint on *slashed-head-phrase*). A full constraint on *unexpressed-topic-clause* will also need to ensure the appropriate semantics with an unexpressed topic, but I will not try to decide how this should be done. Thus, if Willis (1998) is right about the second clause in examples like (37), they are unproblematic for the account of Middle Welsh verb-second outlined above. They just require a slight elaboration of the type system.

Here, then, we have an approach to Middle Welsh verb-second in which a negative constraint rules out a finite standard verb (any verb other than the copula) in initial position in a simple finite positive declarative main clause. It allows a finite standard verb in initial position in negative declaratives, interrogatives, and imperatives, and in the lower S in an extended clause. It also allows a topic, a focused constituent, a non-finite verb, and an expletive pronoun in initial position.

6. Concluding remarks

In this paper, I have been concerned with the fact that Middle Welsh has a verb-second restriction with a constituent of some kind before the finite verb in positive declarative main clauses. There are questions about the nature of this restriction. There are also questions about subject-initial clauses, both

abnormal sentences, where the subject is a topic, and mixed or cleft sentences, where it is a focused constituent. I have argued that neither mixed/cleft sentences nor abnormal sentences with a nominal topic are head–filler phrases. However, they share certain properties with head–filler phrases, which can be captured by treating them as subtypes of a single type. Building on these proposals, I have argued that the verb-second restriction is a consequence not of a positive constraint requiring certain clauses to have a certain property but a negative constraint requiring them not to have a certain property, namely an initial finite standard verb. I have also argued that certain unexpressed topic clauses can be analysed in terms of a unary branching structure. This involves a further phrase type which is not a head–filler phrase but shares properties with such phrases.

Primary texts

BB = *Brut y Brenhinedd: Cotton Cleopatra Version*, ed. John Jay Parry (Cambridge, Mass.: Mediaeval Academy of America 1937)

CO = *Culhwch ac Olwen: An Edition of the Oldest Arthurian Tale*, ed. Rachel Bromwich and D. Simon Evans (Cardiff: University of Wales Press 1992)

Dewi = *Buched Dewi* 'The Life of St David'

Per = Peredur *Historia Peredur vab Efrawc*, ed. Glenys Witchard Goetinck (Caerdydd: Gwasg Prifysgol Cymru, 1976)

PKM = *Pedeir Keinc y Mabinogi*, ed. Ifor Williams (Caerdydd: Gwasg Prifysgol Cymru, 1930)

WM =*Llyfr Gwyn Rhydderch*, ed. J. Gwenogvryn Evans with introduction by R. M. Jones, (Caerdydd: Gwasg Prifysgol Cymru, 1973)

YBH = *Ystoria Bown de Hamtwn*, ed. Morgan Watkins (Caerdydd: Gwasg Prifysgol Cymru, 1958)

YSG = *Ystoryaeu Seint Greal*, ed. Thomas Jones (Caerdydd: Gwasg Prifysgol Cymru, 1992)

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