

Verb movement in Germanic and Celtic languages: a flexible approach

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1 Introduction

A question that has dominated research into V1 and V2 effects is whether the two phenomena can be analyzed as variations of the same theme. One issue concerns whether or not V1 is hidden V2, i.e. whether V1 languages have some covert element preceding the verb, making them covert V2 languages, or not. The other issue is whether the verb in V1 and V2 languages does or does not occupy the same structural position. This article will deal with the latter question.

One strategy to approach the issue of verb positioning is to postulate a number of functional heads, say F_1 and F_2 , and see whether the verb in Germanic and the Celtic languages moves and adjoins to the same functional head or not. We could perhaps identify F_1 and F_2 as the familiar C and I (or T). We may even have to go a step further and suggest that Germanic and Celtic languages both move the verb to C, but to different heads in a proliferated C-domain à la Rizzi (1997).

Although there is nothing wrong with taking this strategy, there is a potential drawback. The theory we end up with provides a neat description of the facts but has little to offer beyond that. In fact, this has proven to be a fundamental short-coming in the study of verb movement in Germanic. The extensive literature in this field has been much more successful in casting the empirical observations into syntactic trees, than in explaining why the trees are the way they are. Let me illustrate this point.

We know that some languages only show verb second in main clauses (e.g. Dutch, Norwegian) and other languages in both main and embedded contexts (e.g. Icelandic, Yiddish).

- | | | | |
|-----|-----|---|-----------|
| (1) | a. | Ik geloof dat Jan de waarheid spreekt | Dutch |
| | | <i>I believe that Jan the truth speaks</i> | |
| | a'. | *Ik geloof dat Jan spreekt _i de waarheid | |
| | | <i>I believe that Jan speaks the truth</i> | |
| (2) | a. | (að) í herberginu hefur kyrin staðið | Icelandic |
| | | <i>that in the room has the cow stood</i> | |
| | b. | (az) morgn vet dos yingl zen a kats | Yiddish |
| | | <i>that tomorrow will the boy see a cat</i> | |

The literature has provided two ways of capturing this contrast. One is to say that embedded clauses in Yiddish and Icelandic are structurally richer, having two CPs (cf. Vikner 1995). One is headed by a complementizer, the other is projected from a head to which the verb moves. In German and Norwegian, there is only one CP, which is headed by a complementizer in embedded clauses. Hence, verb movement is blocked in embedded clauses (cf. den Besten 1983). Another solution is to say that all languages basically have the same structure but that in Icelandic and Yiddish verb second effects should be located in IP (cf. Diesing 1990). Hence, the presence of a complementizer in embedded clauses does not block verb movement, since the verb moves to I, not to C. As there is no independent reason

why only Icelandic and Yiddish should have two CPs, or have V2 in IP, either approach raises the same question: Why are exactly Icelandic and Yiddish different?

The same point can be made with regard to Modern English. We know it lacks generalized verb second in declarative clauses. To capture the difference with other Germanic languages, one could for instance propose (as has been done in the GB-era) that in English case is assigned to the subject through spec-head agreement, whereas in verb second languages case is assigned under government, requiring the verb to raise to a position higher than the subject. As there is nothing intrinsic to either of these grammars that will indicate the structural mode of case-assignment, the question is again of the same type: Why is English different?

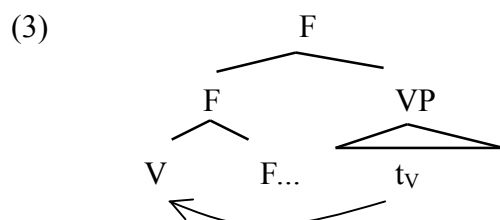
The purpose of this article is the following. I will first sketch an alternative conception of verb movement, as envisaged in Koenenman (2000). This work focuses on the parametric differences in verb placement in Germanic languages, with an outlook on Italian, and tries to account for these differences by referring to independently motivated, and easily observable, properties of the languages involved. With this Germanic perspective in place, we can then look at the Celtic languages, decide what type of verb movement we expect these languages to have and then aim at unification with a system that uses the same set of principles and parameters.

There will be two main conclusions. First, it is understandable that there is a lot of debate about the type of verb movement in Celtic, because the properties triggering the verb movement operations in Germanic, tense and agreement, are far less straightforwardly encoded in Celtic. Second, the discussion about whether Celtic displays a V to C or V to I/T type of verb movement should hinge on the status of agreement. The debate in the literature is whether or not these languages have agreement at all, which therefore complicates the issue tremendously. The outcome of this debate, however, will not affect one core motivation for verb movement in Celtic, which is to put tense in its proper place. From the perspective of the new, more flexible theory of verb movement, the debate about Celtic verb movement being either V to C or V to I becomes a bit misguided, as I will show, since both verb movement operations can take place for the same reason.

The structure of the paper is as follows. In section 2, I propose an alternative theory of verb movement, formulate concrete triggers (section 2.2) and apply this system to account for variation in Germanic (section 2.3). With this analysis in place, we can subsequently approach verb movement in the Celtic languages from this new perspective, which will be the topic of section 3. As verb movement variation in Germanic is determined by tense and agreement properties, this section establishes what has to be assumed for the Celtic languages such that a uniform analysis of verb placement is feasible. Section 4 concludes.

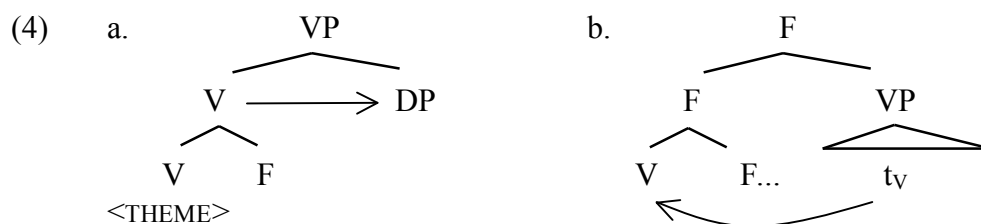
2 An alternative view on verb movement

The standard conception of verb movement (cf. Baker 1988, Roberts 1993, Chomsky 1995) is that of an operation which takes the verb from its base position and adjoins it to a prefabricated functional head-position, say F. This will create the representation in (3):



Apart from the fact that this operation violates the extension condition (the requirement that any move or merge operation extend the root of the tree, cf. Chomsky 1995), it has proven difficult to use it in an interesting way to capture parametrization. Whether the verb in a particular language (overtly) moves to F or not is reduced to properties of F, which could be either strong (overt movement) or weak (no overt movement). Although the notions 'strong' and 'weak' sound intuitively plausible, in theoretical practice we could equally well use the notions 'pink' and 'purple' without loss of predictive power, because there isn't any.¹

Although in principle the analysis of verb movement in (3) could be correct and only the right features in F need to be identified, I believe that theoretical progress can be achieved by the formulation of alternative theories of verb movement. One alternative is sketched in Ackema et al. (1992) and worked out in Koenenman (2000). The main idea is that there is no prefabricated functional structure that the verb moves to, but the verb moves to create it. The question is then still what triggers movement. I will assume that the lexicon pairs feature bundles (lexical heads and morphemes) with morpho-phonological instructions (i.e. how to pronounce these lexical items and morphemes). Although spell-out takes place post-syntactically, as in Distributed Morphology, the combining of lexical items and morphemes into complex lexical items (that is, morphology) can take place prior to syntactic insertion. As such, nothing blocks morphemes from having an effect on the syntax. Suppose that a finite verb consists of a verbal stem and some features and that the morphological component creating these complex heads leaves undetermined which of these is the head of this complex: [_? V F₁ F₂ etc.]. In that case, the syntactic environment will have to determine which of these features must be syntactically active and hence be analyzed as the syntactic head. When this complex head is merged with a DP object, V will be interpreted as the head by the LF-interface, as V must be active at this level in the structure for reasons of theta-role assignment (cf. 4a). Suppose now that some feature on the verb, F, needs to be in a VP-external position for whatever reason. Then the verb moves and merges with the VP. After this operation, the LF-interface can now decide to interpret F as the head of the complex head in the derived position, if this fulfils some purpose. The result is given in (4b):



Note that the outcome of this structure-creating verb movement is similar to that in (3), but the process leading to it is nevertheless quite distinct. There are two immediate conceptual advantages. First, the operation does not violate the extension condition, because the root is extended by verb movement. Second, no reduplication of features is necessary: whereas the old theory postulates the presence of a particular feature on the verb as well as a similar feature on a functional head, the new theory only postulates this feature once (at least in the default case). In addition, the new theory now allows the formulation of a new type of trigger for movement: Move the verb if F has to be in a VP-external position. This type of trigger cannot be straightforwardly formulated in the old theory since F is already represented VP-

¹ There have been attempts to define 'strong' in terms of morphological richness (cf. Rohrbacher 1994, Bobaljik 1995), but this has at most been successful in capturing V to I movement (see section 2.1 below). Since V to C movement is not connected to any observable morphological richness, such attempts fail to account for verb movement *in general*. Hence, the criticism against the strong-weak dichotomy remains valid.

externally, namely as (part of) a functional head. Moreover, under the now standard assumption that this functional head can enter into an AGREE relation with similar features on the verb (cf. Chomsky 2000), the trigger for verb movement becomes even more mysterious.²

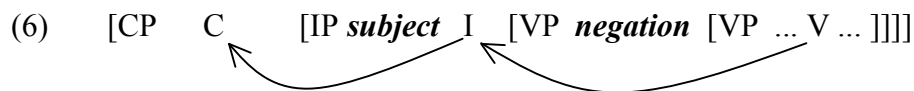
In the new theory, the questions to be answered are the ones in (5).

- (5) a. Why does F need to be in a VP-external position?
 b. Why does F not trigger movement in all languages/clause types?

Question (5a) is about the triggers and in a way makes explicit a question that should also be raised in the mainstream analysis that postulates functional heads in VP-external position. Question (5b) is about the parametrization. There are only two possible answers I can think of. Either F does not exist in a particular language (which we will see is the case for agreement) or there is a language-specific way of satisfying F's needs such that verb movement becomes redundant (which we will see is the case for tense). Let us deal with triggers and parametrization in turn.

2.1 Triggers for verb movement³

Germanic languages provide robust evidence for two verb movement operations. One puts the verb in a position between the subject and negation or adverbs, which are standardly taken to mark the left edge of the VP. The other puts the verb in a position higher than the subject. These movements are standardly captured by assuming two functional layers dominating VP, where the verb moves to the head of I and/or C:



Both operations are clearly parametrized, leading to a typology in which a declarative clause in a particular language can involve one of these movements but not the other, both or neither. Some concrete examples of languages fitting these descriptions are given in (7). I refer to Vikner (1995) for concrete evidence leading to this typology.

(7)

| | <i>V to I</i> | <i>No V to I</i> |
|------------------|--------------------|-------------------------------|
| <i>V to C</i> | Icelandic, Yiddish | Norwegian, Dutch ⁴ |
| <i>No V to C</i> | Italian, French | English |

A theory that does not assume the existence of prefabricated I- and C-domains also needs to be explicit about triggers for movement, of course. I postulate two interface conditions that

² Note that the AGREE theory does away with the strong/weak dichotomy as the system explaining word order variation. This role is taken over by movement triggering EPP-features. These are postulated whenever we see movement. As there is nothing in the system, independent from movement, that tells us when these EPP-features are generated, this system does not improve over the old one and the same criticism applies.

³ Due to space limitations, the following two sections cannot provide more than the gist of the proposal. I refer the reader to Koenenman (1997, 2000) for the fleshed-out account that addresses a lot of issues that will immediately arise.

⁴ No V to I could be interpreted in two ways. Either the verb is not independently triggered by I but stops here on its way to C in order not to violate the head movement constraint (cf. Vikner 1995) or the I-projection is radically absent (cf. Weerman 1989). The system I develop here is more along the lines of the second option.

refer to two properties of the verb that are visibly encoded in Germanic languages, namely tense and agreement. This enables us to directly relate the robust evidence for two verb movement parameters (V to C and V to I) to the robust evidence, provided by overt spell out, for the presence of two features on finite verbs. The triggers that I propose are 'relational' in nature. That is, the verb must ensure that a particular feature on it will stand in a particular structural relation to other elements in the clause.⁵

- (8) a. V to I movement is an operation that the verb undertakes in order to put rich agreement features in the predication domain of VP.
b. V to C movement is an operation that the verb undertakes in order to put tense features in a position from which they take scope over the subject and the predicate.

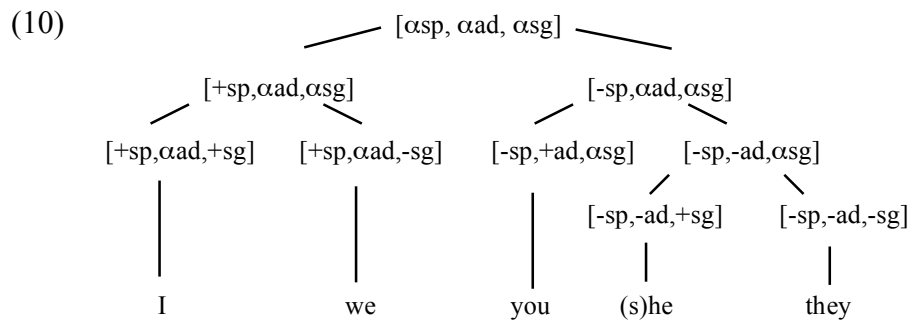
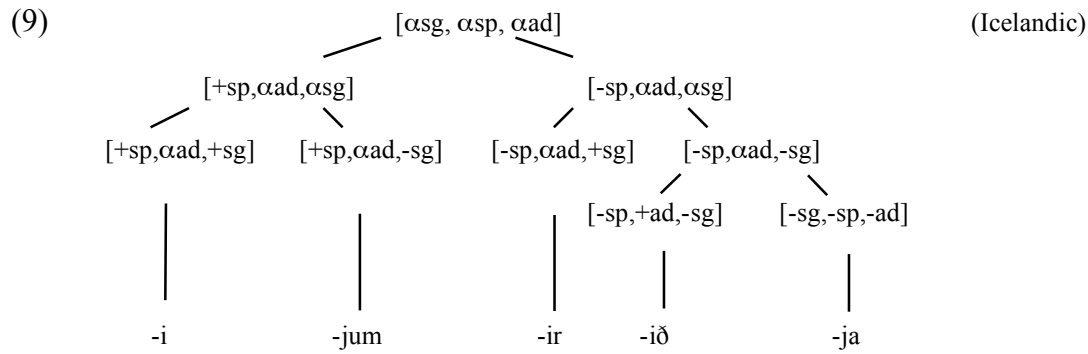
Let us shortly go over these triggers.

Statement (8a) captures the robust correlation between having the V to I property and having rich agreement (cf. (Kosmeijer 1986; Pollock 1989; Platzack & Holmberg 1989; Holmberg & Platzack 1991; Roberts 1993; Rohrbacher 1994, among others). Why should such a correlation exist? My proposal is that rich agreement is argumental and should therefore occupy a subject position in the tree. How does this work, and why would it trigger verb movement?

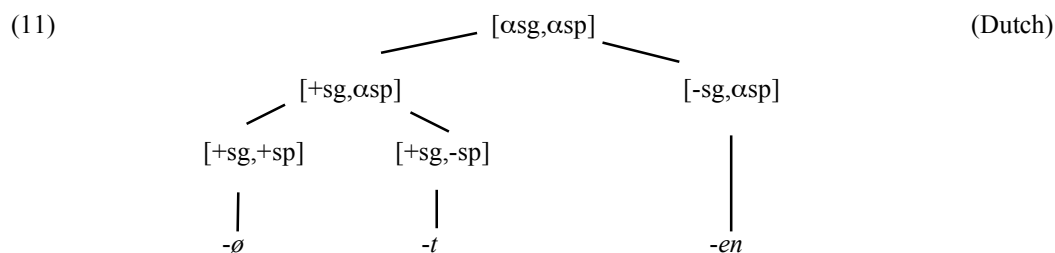
In a language with relatively many inflectional endings, more features are required for the description of that paradigm. The empirical observation is that languages with V to I movement have four or more distinctions in their paradigm (cf. Rohrbacher 1994; Koenenman 1997). In a binary feature system, these distinctions require the postulation of three features to describe such a paradigm, [α speaker], [α addressee] and [α singular]. This is typically the number of features also required to describe a Germanic pronominal system that differentiates two numbers and three persons. Hence, rich agreement paradigms (that is, the ones that trigger V to I movement) and pronominal paradigms have a certain feature richness in common that we will now exploit. I will illustrate by drawing a parallel between Icelandic inflection and the English pronominal system. Let us represent paradigms as binary-branching tree structures, with pronouns and agreement inflections as the terminal nodes (cf. Pinker 1984 and Harley & Ritter for more discussion on feature structures).⁶ Under the assumption that the paradigm (i.e., the top node) is characterized by the sum of features that play a role in it, the forms that are not positively or negatively marked for a particular feature (that is, syncretic forms) will only be *underspecified*, but not *unspecified*, for this feature: every form in (9) and (10) is comprised of three features. Assuming that in both systems the feature [+speaker] implies [-addressee], both have one truly underspecified form: *-ir* in (9) and *you* in (10).

⁵ One reviewer wonders if the interface conditions could not be met without head movement, namely by letting LF assign distinct interpretations to different nodes of the projection line. If all the features of [V-T-AGR] project twice through merger with an object and subject, the tree includes three nodes of the form [V-T-AGR]. These could subsequently receive distinct interpretations as V, T and AGR respectively. The assumption I make here is that the syntactic encoding of a relation between two constituents requires scope, which means that the path between these two constituents requires at least one upward movement. This is uncontroversially true for thematic and predication relations: a subject cannot be contained in the category that predicates of this subject, for instance. If this assumption about syntactic relations is generalized, it becomes easy to see that projection does not bring about the required scopal relations. T, for instance, would at most dominate, thus contain, V.

⁶ See Pinker (1984) for discussion of feature structures and syncretism from a learnability perspective. For a discussion from a typological perspective, see Harley & Ritter (2002) who offer a theory that is more successful in capturing syncretic patterns of pronominal systems than in capturing those in the more erratically structured agreement systems.



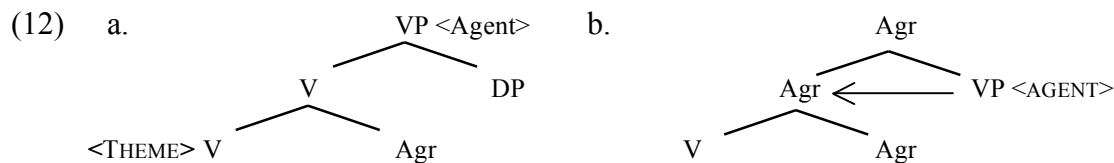
These paradigms are distinct from one with less than four distinctions, as AGR in such a language would not be characterized as a bundle of three features. Dutch is a case in point.⁷



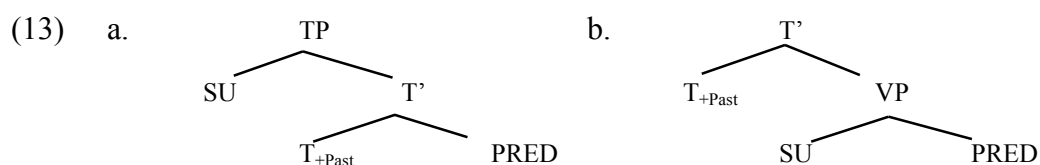
The proposal is that if agreement feature bundles in a language should be characterized as consisting of these three features, they take on the same role as that of nominative pronouns, namely the role of subject. Just like a pronominal paradigm can contain an underspecified form that can still function as a subject (such as English *you* in (10)), so can an agreement paradigm (such as *-ir* in (9)). Rich agreement affixes must therefore be interpreted by being associated with the external theta-role. Under the assumption that this theta-role is assigned by VP, as in Williams' (1980 and further) predication theory, we have our trigger for verb movement. V moves, projects AGR, which in turn receives the theta-role from VP:⁸

⁷ German, with five distinctions, should be characterized as rich. Nevertheless it displays no verb movement in embedded clauses. See Koenenman (2000) for an analysis that makes German fit in. A discussion would take us too far afield here.

⁸ This analysis has two non-trivial consequences. One is that in a language with rich agreement lexical DPs and pronouns are specifiers of subjects rather than subjects themselves. See the table in (18) for some more discussion. The second consequence is that the standard analysis of passive and unaccusative predicates cannot be correct. Instead of assuming that the internal theta-role is assigned to a VP-internal object followed by EPP-driven movement of the object to subject position, I assume that the internal theta-role is promoted to the level of VP and assigned to a VP-external category (a raised object or rich agreement). How this works in detail cannot be discussed here, but see Williams (1994) for an analysis in terms of vertical binding and Koenenman & Neeleman (2001) and Koenenman (2000) for an approach in terms of lambda-operators. In the latter approach, a



Statement (8b) expresses the intuition that, although tense features are introduced by the verb, as evidenced by the post-syntactic spell out, they are not part of the denotation of the verb. What the tense specification (\pm Past) does is anchor a proposition, roughly the combination of a subject and a predicate, in time. The proposal is that this is syntactically encoded: tense should take scope over the subject and the predicate. This can be achieved by either c-command (as in 13a) or m-command (as in 13b), both options requiring the verb to move and project its tense features:⁹



It will be clear that (13b) is the structure that will account for subject-verb inversion and will generate verb second, with any XP occupying specTP. The structure in (13a) will be used in English, as we will see.

To conclude, a complex head consisting of a verb, tense and agreement features, is generated in one syntactic position. If some output condition cannot interpret one of its components in that position, verb movement can come to the rescue. It is not the case that a complex head necessitates movement.¹⁰ If LF has no problem in interpreting the complex head in its base position, movement is blocked by economy. How this works is explained in some detail in the next paragraph.

2.2 Accounting for variation in verb placement

V to I movement has been replaced by an agreement-projecting verb movement and V to C movement by a tense-projecting verb movement. We have seen that both operations are

VP with an unassigned external theta-role and a VP with a syntactic trace, i.e. a variable, are semantically identical. The object raises to subject position to create this variable and establish a predicational relation with VP. No EPP-feature has to be postulated to trigger object-to-subject raising.

⁹ In Williams' predication theory, a verb or VP assigns its theta-role under m-command, allowing a subject to be a sister of the theta-assigning category, as AGR in (12b) and SU in (13b), or a specifier of the first projection dominating VP, as SU in (13a). The definitions of c-command and m-command that I will use are given in (i) and (ii):

- (i) C-COMMAND:
A category α c-commands a category β if and only if (i) α does not dominate β , and (ii) every category that dominates α dominates β .
- (ii) M-COMMAND:
A category α m-commands a category β if and only if (i) α does not dominate β , and (ii) every maximal category that dominates α dominates β .

¹⁰ Therefore, it is also not predicted that a portmanteau morpheme requires two syntactic positions or movement (a question raised by one of the reviewers), although it can. Movement is triggered if that enables LF to interpret an otherwise uninterpretable feature of the complex feature bundle, here [V+T+AGR]. Whether this complex head is eventually spelled out by one or three morphemes is irrelevant.

clearly parametrized, as languages can have one, both of neither of them (cf. 7). As noted in the introduction, there can also be language-internal variation: A language like Dutch only displays V2, and hence a V to C type movement, in main clauses (cf. 1a), whereas Icelandic and Yiddish do not show the same asymmetry (cf. 1b).

This raises the question of what determines the parametric choices. Given the fact that we have formulated two interface conditions on tense and agreement, the question becomes why verb movement sometimes does not take place. There are two possible answers. Either the language lacks the category to which the interface condition applies, or the language has found a language-specific way of satisfying it, such that verb movement does not have to take place. We will explore these options. Note by the way that the new theory of verb movement no longer assumes that empty heads are by default part of the clausal structure and that these heads enter into an AGREE relation with features lower down in the structure. This does not mean, of course, that empty heads and the notion AGREE cannot exist at all. In fact, we can now exploit these constructs in our explanation of cross-linguistic variation, as will be shown below.

For the agreement-projecting verb movement, the parametrization is relatively straightforward. Dutch, English and Norwegian lack this movement type, because they lack rich agreement. Norwegian has no distinctions in its inflectional paradigm and therefore we do not see the verb move in non-V2 contexts (i.e. embedded clauses selected by a non-bridge verb, cf. Vikner 1995 for details). English only has third person singular *-s*, which is not enough for the postulation of all the relevant features that would characterize agreement as argumental. The same conclusion holds for Dutch. Hence, AGR does not need to be associated with VP's theta-role and the verb does not have to move to project agreement.¹¹

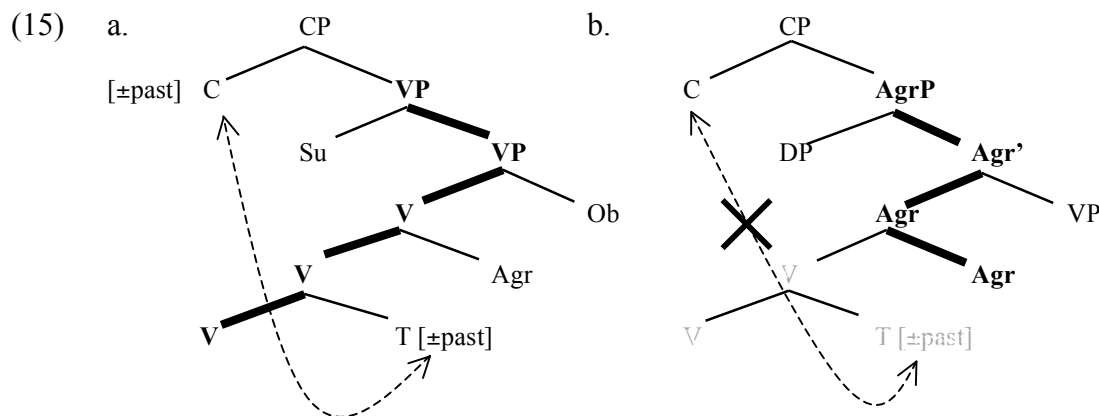
Under the assumption that universally tense features need to take scope over the subject and the predicate, we now seem to predict that in any clause with tense features expressed on the verb a V to C type of verb movement is expected. This expectation is not met. The proposal is that language-specific properties can make this movement unnecessary. Although this is not the place to provide an account for any language that is not V2, I will go over the following illustrative cases:

- (14) a. A V to C type of verb movement does not take place in embedded clauses in Dutch, because the complementizer enters into an AGREE relation with the tense features on the verb.
- b. A V to C type of verb movement does not take place in English because this language has an empty tense head entering into an AGREE relation with tense features on the verb.

¹¹ Some literature has explicitly argued against the correlation between V to I movement and richness of inflection, Bobaljik (2003) being the most eloquent example. An important part of the criticism involves examples from languages that have acceptable V-adverb orders in the absence of rich agreement. This is for instance attested in Scandinavian dialects. I believe that these exceptions are not understood well enough to count as problems. It has for instance been noted recently (Bentzen et al. 2007) that in Northern Norwegian dialects this order is only optional (the adverb-V order being preferred), which makes it distinct from obligatory V to I in languages with rich agreement. Second, the V-adverb order has an interpretive effect on indefinite subjects that is not attested with 'regular' V to I movement. Third, verb movement across negation is categorically excluded in these dialects. Although I do not have a full-fledged analysis of these data, I suspect that negation is simply a more reliable indicator of verb movement to a VP-external position and that the V-adverb orders can in some languages be created by predicate-internal verb movement. It possibly involves reprojection of the verbal feature and is reminiscent of scrambling in affecting the interpretation of indefinite noun phrases. Under this view, these V-adverb orders do not constitute convincing counterexamples to the proposed correlation.

- c. A V to C type of verb movement does not take place in Italian because it is a null subject language.

Let us start with the asymmetry in Dutch. This language has a complementizer introducing the finite embedded clause which is marked for tense. This head enters into an AGREE relation with the relevant tense feature on the verbal head, i.e. [\pm Past], which thereby becomes part of the complementizer. As this head c-commands the subject and the predicate, the interface condition is met (cf. 15a). The question then is why languages like Yiddish and Icelandic nevertheless display the V to C type of verb movement in embedded contexts. These languages have rich agreement, which means that they independently need to move the verb to project AGR. This operation, I propose, creates an opaque domain in the sense that an AGREE relation between the complementizer and the [\pm Past] feature on V cannot be established. Note that the projection line of C's complement, i.e. the V-line, runs all the way to the bottom in (15a) whereas the projection line of C's complement in (15b), i.e. the Agr-line, is 'cut off' above the tense features.



Since AGREE fails in (15b), [\pm Past] does not take scope over the subject and predicate and the interface condition is violated. The consequence is that after the agreement-projecting verb movement, Yiddish and Icelandic need to move the verb once more to project tense. As a result, these languages do not display the root/non-root asymmetry that we see in Dutch.¹²

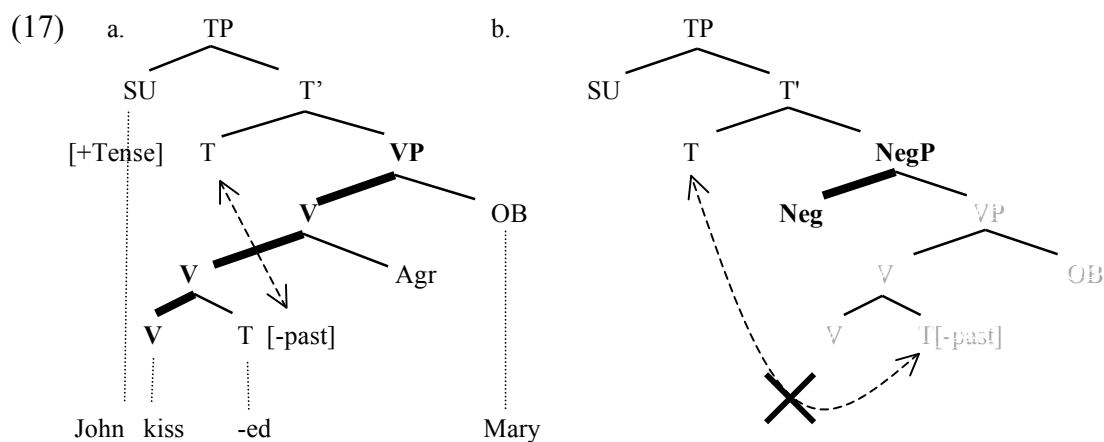
Let us now turn to English. In a theory that does not by default postulate empty heads as part of clause structure, we can limit the use of such elements to environments that actually provide concrete evidence for their existence. The *do*-support paradigm in English is such an example. English finite verbs occur below VP-adverbs (cf. 16a) but if negation is present, that option is not available (cf. 16b) and a finite form of *do* must be realized above negation (cf. 16c).

- (16) a. John never goes to work

¹² The idea that AGREE is locality-sensitive in the way suggested here is of course a stipulation and therefore an ad hoc device. Two things can be said in its defense. First, the device is not structure-specific, as the same locality notion plays a role in English *do*-support, as will be shown next. Second, the mechanism is not supposed to be more than a technical device that expresses the intuition that embedded V to I causes embedded V2. Although other and perhaps less stipulative mechanisms can be imagined, it should be realized that mainstream devices cannot so easily express the same intuition. It is for instance not obvious that a strong feature in AGR can cause a feature in C to be strong too, as the two are supposed to be logically disconnected. For this reason, the device I use does not disfavour my proposal for the data in a comparison with mainstream analyses. If it turns out that feature checking can be made sensitive to language-specific properties and can formalize the same intuitions as my proposal expresses, I would consider it a new theory of parametrization.

- b. *John not goes to work
- c. John does not go to work

The standard account for the contrast between (16a) and (16b) is that some relation between the verb and an invisible higher head is established in (16a) but blocked by an intervening head, negation, in (16b). If this account is on the right track, there must be an invisible head to begin with. This head is in complementary distribution with other heads that can occur in that position (modals, finite forms of *do*, *have* and *be*, the *to*-infinitive marker), which seem to have in common that they are marked for $[\pm\text{Tense}]$. The proposal we can then put forward is that an empty tense-head can be used in an English clause that enters into an AGREE relation with the $[\pm\text{Past}]$ feature on V (cf. 17a). The presence of negation creates an opaque domain, as the (bold-faced) projection line of T's complement is again 'cut off' above the relevant tense features (cf. 17b). Hence, a head realizing $[\pm\text{Past}]$ above negation is required.



Since the *do*-support paradigm provides the evidence for the empty tense-head and this paradigm is unique to English, at least within Germanic, the empty tense-head is unique to English, as well. An additional issue is how English developed this empty head. A likely possibility is that it is a by-product of the development of a modal paradigm and that the empty modal is paradigmatically licensed, just like a null affix in an agreement paradigm can be. The development of a modal paradigm and the loss of verb second both take place at the end of the 14th century (Lightfoot 1979; Roberts 1993), suggesting that one is the consequence of the other. Van Gelderen (1993) also connects the loss of V2 with the rise of *do*-support in negative contexts and relates both to the introduction of empty T in the grammar of this language, an analysis which comes close to the one advocated here. Hence, the analysis relates the fact that English is the only Germanic language without a V to C type of movement in declarative clauses to the fact that English is the only Germanic language with robust evidence for the existence of an empty head. Since the availability of this head is a consequence of an independent development of English, namely the development of a paradigm of modal markers, the analysis accounts for the different verbal syntax in a non-ad hoc way. The availability of an empty head is conditioned, i.e. a consequence of paradigmatic licensing, so that the analysis makes predictions about verbal syntax that mainstream approaches do not make.

Let us finally turn to Italian, as including it will prove important for the discussion about Celtic languages. Italian is generally characterized as a language that has V to I movement but lacks V to C movement. In our terms, this means that Italian moves the verb to project AGR, which is expected because Italian has rich agreement. The question, however, is how the condition on tense is then satisfied. Unlike Yiddish and Icelandic, Italian lacks the

V to C type of movement to take care of this. The answer to this question comes from a fine-tuning of the characterization of agreement in these languages. Yiddish, Icelandic and Italian all have an agreement paradigm rich enough to lead to a postulation of the features [α speaker], [α addressee] and [α singular], which gives AGR argument status and makes verb movement necessary. However, Italian is in addition a null subject language, in contrast to Icelandic and Yiddish. Is it possible to play out this difference in such a way that the difference in verb placement facts follows?

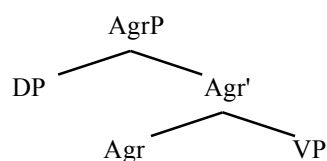
Suppose that we make the following distinction: if an argumental paradigm does not contain any syncretic forms, it is characterized as pronominal and if it does, it is characterized as anaphoric. Then in all three languages agreement must be brought into a VP-external position, given its argumental nature. Only in Italian can agreement be interpreted as an argument on its own, given its pronominal nature. This view basically expresses the null subject character of Italian by means of the classical view on Italian agreement as pronominal (Rizzi 1982), amended by the view that an empty subject, *pro*, should be dispensed with, as argued in Alexiadou & Anagnostopoulou (1998).

(18)

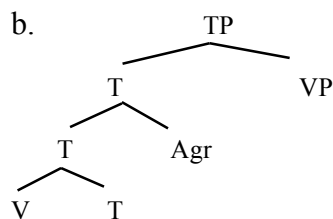
| Type of Agreement | Argumental Agreement | | Non-Argumental Agreement |
|-------------------|----------------------|-----------|--------------------------|
| | Pronominal | Anaphoric | |
| AgrP? | yes | yes | no |
| Pro drop? | yes | no | no |

In Yiddish and Icelandic, agreement requires the realization of spec-AgrP by a DP. This DP is exactly what its position suggests: a syntactic specifier of the subject (cf. 19a). This characterization of the difference between Italian on the one hand and Yiddish and Icelandic on the other hand, enables us to account for the difference in verb placement. If Italian has pronominal agreement, which does not need to be syntactically specified, both interface conditions are satisfied if the verb moves once and projects T rather than AGR (cf. 19b). As can be observed, T c-commands both the subject (AGR) and the predicate (VP), so that the condition on tense features is satisfied. At the same time, AGR is within VP's m-command domain (cf. footnote 3), so that it can be associated with the external theta-role.

(19) a.



b.



A similar verb placement strategy is excluded in Yiddish and Icelandic because if a DP is added to the structure in (19b), this DP would specify T and not AGR, as required. Of course, nothing prevents a DP like *Gianni* from occupying specTP or being adjoined to TP in (19b), thereby providing more content to the referent picked out by the agreement inflection. However, its function is not to enter into a feature sharing spec-head configuration with an anaphoric head, like in Icelandic and Yiddish. The syntactic difference between these DP-elements in Italian on the one hand and Yiddish and Icelandic on the other leads to the expectation that the relation between *Gianni* and the verb is much freer in Italian than it

would be in Icelandic and Yiddish, which is in accordance with a line of literature on subjects in Romance (cf. the discussion in Barbosa 1996 and Cardinaletti 1997).¹³

This analysis may seem to beg the question of how to characterize this Italian verb movement in more classical terms. Positionally, the Italian verb movement has more in common with the classical V to I type of movement than with the classical V to C, as the verb can be seen to cross VP-adverbs such as *più* 'anymore' (negation is a clitic, hence not telling. Cf. Belletti 1990) but not overt 'subjects': VSO is not a possible word order in Italian.¹⁴

- (20) a. Gianni non parla più
Gianni not speaks anymore
'Gianni does not speak anymore
b. *Parla Gianni non più
'Gianni does not speak anymore

Hence, this gives the feel of Italian verb movement being to a lower position. Relationally, however, the Italian verb movement shares a property with our reformulation of the classical V to C movement, as its function is (also) to put tense in the right position. An important conclusion, then, is that in a flexible approach to verb movement, there is nothing that forbids classical V to I and classical V to C to basically have a similar function.¹⁵

3 Verb placement in Celtic

There is a general consensus about the fact that the pervasive VSO orders in the Celtic languages should be derived from an underlying SVO order by a verb movement operation crossing the subject. Less consensus exists about what type of movement this should be. Some scholars have claimed that VSO should be derived by V to C movement (Deprez & Hale 1986; Stowell 1989; Hale 1989; Malone 1990; Huybregts 1991). Others have argued that this order should be derived by V to I (or T) movement (Chung and McCloskey 1987; McCloskey 1991; Koopman & Sportiche 1991; Guifoye 1990; Rouveret 1990). Schafer (1992, 1994) argues that Breton has V to C movement, whereas the other Celtic languages have V to I movement.

¹³ A null subject analysis is defensible for Quebec French, in which pronouns seem to behave like agreement markers (cf. Muller 1984; Roberge 1986; Hulk 1986; Auger 1992; Zribi-Hertz 1993; Rohrbacher 1994; Ferdinand 1996). These arguments do not carry over to European French, which is therefore analyzed as in (13a): the verb moves once, projects T and the subject is generated in the functional specifier. The difference between French and a V2 language, then, lies in the fact that in Germanic languages the T-projecting verb movement can follow merger of the subject, a system that is kept in place as long as the primary data contain unambiguous V2 effects. French lost these data at the time when it was still a null subject language (cf. Vance 1995, de Bakker 1997).

¹⁴ Although VSO orders are ungrammatical in Italian, they do appear in other Romance languages. Spanish is a case in point. These orders, however, are only grammatical if some XP precedes the verb (Ordóñez 2000). Since it is the nature of the preceding XP (for instance, an emphatic phrase like *nada* 'nothing') that dictates whether subject-verb inversion is obligatory, this verb movement seems to be triggered by this fronted XP and hence unrelated to the tense and agreement properties it carries. See Sheehan (2007) for arguments against a verb second analysis of these data.

¹⁵ An important difference between Italian and the bulk of the Germanic languages revolves around what kind of XPs can precede the finite verb and how many (Germanic languages have the verb second property, Italian lost it). This issue constitutes an elaborate topic on its own, which I have already put aside in the introduction.

Instead of repeating all the arguments for either of these positions, I will approach the issue from a new angle, namely the one sketched in the previous two sections, for the following reason. In the previous section, I have offered an alternative theory of verb movement. Looking at Germanic languages mostly, I subsequently suggested that variation in verb placement follows from the interaction of universal interface conditions and language-specific properties. Specific details of the proposal will no doubt be incomplete, or simply wrong, and the analysis is explicit enough to be open for criticism on how it tries to capture the variation. However, that seems to me to be a good thing, compared to the situation we were in before. In the standard framework, clausal structures are taken to contain a series of empty functional heads, the features of which are responsible for differences in word order: strong features trigger overt movement, weak features do not. Given the absence of definitions for the notions weak and strong, no real predictions are made. The consequence is that, after we have analyzed a set of languages using this system, there is - on the basis of that analysis - nothing that we expect when we start analyzing the next set of languages. The theory is simply not helpful. Moreover, no empirical data will ever tell us that we are on the wrong track. The choice to abandon the feature checking system with its weak-strong dichotomy can only be made on conceptual grounds. But if the standard theory were to abandon it, what is there to replace it? It seems, therefore, that under all circumstances linguistic theory would benefit significantly from the formulation of alternative theories that relate clausal structures, movement operations and language variation.

Section 2 offered one such alternative and there is one important result: it brought us in a position from which to turn to the next set of languages, the Celtic ones, and actually expect something. We for instance expect the same interface conditions to hold. So we expect that tense features should take scope over the subject and the predicate and that agreement affixes that are part of a rich paradigm should be in VP-external position. We expect that, depending on the status of agreement, verb movement takes place once or twice. Finally, we should be sensitive to the fact that the actual verb placement facts can be influenced by language-specific properties, some of which may perhaps overcome the need to move the verb. Of course, the ease with which our expectations will be met or disconfirmed depends on the transparency of the data and it is in this respect that the Celtic languages are not entirely co-operative. The status of agreement, for instance, has been an issue of extensive discussion. Tense, on the other hand, is not always expressed by the finite verb but sometimes by a preverbal particle, so that a link with verb movement is not straightforward. Let us go over the tense and agreement facts and determine what our Germanic perspective has to offer.

3.1 The status of agreement in Celtic

Given the discussion about variation in verb placement in section 2, it should be clear that the status of agreement plays an important role. If a language has no or poor agreement, we do not expect the language to display an agreement-triggered verb movement. If a language has an agreement paradigm which we called anaphoric, we expect the language to have an agreement related verb movement but no pro drop. Moreover, we saw that in these languages, the examples being Yiddish and Icelandic, the verb in fact has to move twice, once to project agreement and once more to project tense. If a language has a pronominal agreement type, we expect the pro drop phenomenon. In that event, one verb movement operation, i.e. one projecting tense, would suffice to satisfy the relevant interface conditions.

On the basis of this account of the variation, the task seems relatively straightforward: establish whether the Celtic languages have poor, anaphoric or pronominal agreement and see if the verb placement facts can be brought into harmony with that characterization. It turns out that there are agreement paradigms that look so rich that we may indeed expect them to

trigger verb movement. Paradigm (21a), for instance, provides the conditional conjugation for Modern Irish and (21b) provides the past tense forms of the West Munster dialect:

| | | | | | | |
|------|-----|-----------------------|-------------|-----|----------------------|---------------|
| (21) | a. | Modern Irish | | b. | West Munster Irish | |
| | | Conditional agreement | | | Past tense agreement | |
| | | SG | PL | | SG | PL |
| | 1st | chuirf-inn | chuirf-imis | 1st | chuir-eas | chuir-earmar |
| | 2nd | chuirf-ea | chuirf-eadh | 2nd | chuir-is | chuir-eabhair |
| | 3rd | chuirf-eadh | chuirf-eadh | 3rd | chuir-∅ | chuir-eader |

Pushing it a bit, we could claim that Modern Irish agreement here is anaphoric. The contrast between *-inn* and *-imis* provides the [\pm singular] feature, the one between *-inn* and *-ea* the [\pm speaker] feature. In addition, *-ea* must somehow be characterized as [\pm addressee], although it is not entirely clear how morphological opposition would provide that. After all, opposition with *-eadh* would not lead to the postulation of [\pm addressee], as *-eadh* is also generated in 2nd person plural contexts. Suppose, however, for the sake of the argument that (21a) should be characterized as a paradigm expressing three features plus containing a syncretic form, then (21a) constitutes anaphoric agreement. The paradigm in (21b) could in fact be characterized as pronominal agreement, as every form in it is paradigmatically unique, like in Italian.¹⁶ Hence, we could hypothesize that the richness of agreement in these varieties requires AGR to be in a VP-external position, which would give us a trigger for verb movement. There are, however, fundamental problems with this reasoning.

To start, it is not entirely clear how the conclusion that these variants of Irish have either anaphoric or pronominal agreement can be straightforwardly linked to the basic word order fact that they have in common: their default VSO order, in which the finite verb precedes an overt subject. Recall that Yiddish and Icelandic were languages with anaphoric agreement. They had to move the verb twice: first to project agreement and make sure that a DP can be added to specify anaphoric AGR, second to project tense. In Italian, on the other hand, the verb only has to move once, to project tense, as no specAgrP is required. For this reason, we do not see the verb cross an overt 'subject' in Italian. The basic VSO order, then, would constitute an argument in favour of an analysis along the lines of Yiddish and Icelandic, with both AgrP and TP being projected. There are, however, three problems with such an analysis. First of all, if the West Munster dialect has pronominal agreement, it should be able to have an Italian-style verbal syntax, where the verb only moves once. There is, however no reason to think that the verbal syntax in this dialect is different from the others and VSO orders are just as readily attested. Second, richness is not a stable overarching property of the varieties under discussion, as shown below. Third, we would expect that varieties with anaphoric (like Yiddish or Icelandic) or poor (like English) paradigms should lack argumental pro drop, which at least at first site does not seem to be true. Let us discuss the last two problems in more detail.

The richness that we observed above is restricted to particular paradigms of these varieties. Indicative agreement in Modern Irish is poor, as can be seen in (22a). Present tense agreement in West Munster Irish is less rich than past tense agreement and contains a syncretic form (cf. 22b).

¹⁶ The present tense paradigm in Breton looks similar to the paradigm in (21b), with six paradigmatically unique forms and a null ending in the 3rd person singular.

| | | | | | | |
|------|-----|-----------------------|-------------|-----|-------------------------|-----------|
| (22) | a. | Modern Irish | | b. | West Munster Irish | |
| | | Conditional agreement | | | Present tense agreement | |
| | | SG | PL | | SG | PL |
| | 1st | chuirf-im | chuirf-eann | 1st | cuir-im | cuir-imíd |
| | 2nd | chuirf-eann | chuirf-eann | 2nd | chuir-ir | cuir-∅ |
| | 3rd | chuirf-eann | chuirf-eann | 3rd | cuir-∅ | cuir-id |

Despite these differences in inter-paradigmatic richness, the verb placement facts are stable: If an overt subject is present, the verb is able to cross it, creating a VSO order. Hence, the analysis of these varieties should be such that agreement does not have a fundamental influence on the verbal syntax, which makes the case for an agreement-related verb movement considerably less strong.

The second problem with analyzing these Celtic varieties on a par with Yiddish and Icelandic is that we would not expect pro drop, except in West Munster Irish if the past tense forms are used. However, pro drop is possible, and even obligatory, even in the poorest agreement paradigm, as *chuirfim* in (22a) also occurs without an overt subject, something which is for instance not possible with 3rd person singular *-s* in English:

- (23) Chuirf-**inn** isteach ar an phost sin
 put.cond. **1sg** in on the job that
 'I would apply for the job.'

Hence, it is not the paradigm as a whole which seems to determine pro drop possibilities, or richness. The standard generalization is that all these paradigms consist of synthetic ('agreeing') forms and invariable analytic forms, e.g. *-eadd* in (21a), *-∅* in (21b), that express default 3rd person singular. Only with synthetic forms can a subject be dropped. Hence, *inter*-paradigmatic differentiation between rich and poor should be replaced by *intra*-paradigmatic differentiation between presence (synthetic forms) and absence (analytic forms) of agreement.

However, even this characterization may not be radical enough. Celtic languages display the well-known 'complementarity principle', stating that whenever a synthetic verb form is used, there cannot be an overt subject at all. Hence, (23) contrasts with (24):

- (24) *Chuirf-**inn** *mé* isteach ar an phost sin
 put.cond. **1sg** *I* in on the job that
 'I would apply for the job.'

In an approach that links the absence of subjects to the presence of agreement (McCloskey & Hale 1984 for Irish, Stump 1984 for Breton, a.o.), an additional filter must be introduced to rule out the co-occurrence of agreement and overt subjects, so as to capture the difference between Celtic and Italian. The data in (23) and (24) would straightforwardly follow if we hypothesize that the inflection on the verb is a pronominal subject itself. This is the main intuition of a second strand of research, which comes in two flavours. Some scholars (Anderson 1982, a.o.) argue that in those contexts allowing pro drop the subject pronoun has syntactically incorporated into the verb. The complementarity principle then follows from the fact that the subject position is syntactically occupied by the trace of the incorporated pronoun, hence unavailable for another DP. A variant of this approach, proposed by for instance Doron (1988), argues that synthetic verb forms are suppletive forms which are the post-syntactic spell outs of both the agreement-less verb and the subject pronoun. The second approach explains the complementarity principle in the same way (the subject position is

syntactically filled) and has the advantage of accounting for the fact that synthetic forms can also occur with conjoined subjects:

- (25) da mbeinnse agus tusa ann
 if be.cond.1.sg.emph and you there
 'if I and you were there'

In an incorporation account, (25) would constitute a violation of the Coordinate Structure Constraint, as it has to postulate the possibility of movement out of one conjunct only. In Doron's account, however, the synthetic form spells out the verb and the first conjunct. This is possible because they are linearly adjacent.

Hence, the complementarity principle constitutes an argument for the absence of agreement in Celtic and therefore a final argument against an agreement-related verb movement. There are a few cases in which the complementarity principle seems to break down, however. In Welsh, weak pronouns co-occur with agreeing verbs. In Breton, agreement can also occur with pronominal forms. Examples of these type, however, do not constitute a straightforward problem for the complementarity principle, as there are ways out. Doron (1988) argues that the Welsh examples should be analyzed as involving reduplicated pronouns syntactically and that the reduplication effect is simply retained in the suppletive verb form. Stump argues for Breton that the pronominal elements co-occurring with synthetic forms are emphatic clitics. More problematic are examples in which a synthetic verb form co-occurs with an overt lexical DP. There are two cases I would like to take into consideration. Adger (1994) mentions that Munster Irish as a variant exhibiting this behaviour.

- (26) a. Taíd na ba ag innilt
 be.PRES.3.PL the cows PROG graze
 'The cows are grazing.'
 b. Taíd siad ag innilt
 be.PRES.3.PL they PROG graze
 'They are grazing.'

Although in this dialect the occurrence of lexical DPs is restricted to specific verb forms, there are apparently dialects where this pattern is generalized (the source here being personal communication from McCloskey, mentioned in Andrews 1990). If we conclude from examples like (26) that they involve regular agreement rather than suppletive forms that spell out the verb and the subject by one lexical item, this would not change our conclusions much. The point is that the co-occurrence of synthetic verb forms and overt subjects is restricted to 3rd person contexts. Therefore, the overall pattern in these dialects would only lead to a very restricted, hence poor, agreement paradigm, basically expressing number in 3rd person contexts.

More problematic is a case from Breton. Here, the auxiliary *eus* 'have', often analyzed as prepositional *eus* 'from'/'of', shows agreement with overt subjects productively, i.e. not restricted to 3rd person contexts. This behaviour of *eus* is exceptional, as the language obeys the complementarity principle elsewhere. This problem is discussed in Jouitteau & Rezac (2006) and analyzed in a probe-goal system, incompatible with the assumptions entertained in this paper. I do not have a worked-out analysis for these data but I would like to offer a tentative suggestion. It capitalizes on the fact that in the verbal paradigm suppletive forms have their lexical material (i.e. the verbal stem) to the left and the functional material (i.e. the phi-features) to the right. This is exactly why the debate about whether the phi-feature elements are agreement endings or pronouns was (and is) so likely to arise. The

paradigm of *eus* is different in that the lexical and functional material cannot be neatly linearized. The phi-feature material has originated from pro-clitics. This is still transparently clear from the standard written forms, which uniformly have the stem to the right (*eus*) and show the variation word-initially. This word-initial variation has only partly evolved into more regular affixal endings in spoken Breton. This can be seen in the table below (based on Joutiteau & Rezac 2006).

Table 1. Paradigm of *have* in the present tense.

| | Standard (written) | Spoken Breton | Other dialectal forms |
|-----------|--------------------|---------------|--|
| 1.SG | a/e m eus | 'meus | 'beus |
| 2.SG | a/e z peus, c'heus | 'teus | 'beus, 'peus, 'feus, 'teus |
| 3.SG.FEM | he deus | 'neus, 'deus | 'neus |
| 3.SG.MASC | en deus | 'deus | 'neus |
| 1.PL | hon eus | 'meump | 'beus, 'neus, 'neusomp |
| 2.PL | ho peus | 'peus | 'peut & 'peuc'h, neusoc'h, 'heus |
| 3.PL | o deus | 'neunt | 'neusont, 'neus, neuint, 'deunt, 'deus |

It is standardly accepted that inflectional endings develop from pronouns. The verb and the subject are adjacent elements that at some point get reanalyzed as one head, where the original pronoun has become an agreement ending. However, in a synthetic verb form in Celtic, the phi-feature element has not (yet) become an agreement element, since it cannot co-occur with an overt subject. This is why Doron argues that the synthetic verb form spells out two syntactic positions, a head-position taken by the verb and the specifier position of the phrase selected by this head. The inherent assumption is that PF spell out rules can see more structure than just terminal nodes. If PF spell-out is sensitive to phonological units that are bigger than terminals, the question is what phonological units that would be. The configuration at hand is one that neatly coincides with a prosodic phrase generated by Selkirk's (1986) algorithm which, in a predominantly head-initial language, closes a prosodic domain (that is, inserts a Φ -boundary) whenever a right syntactic XP-node is encountered.

(27) Insert Φ at <right edge, XP>

Hence, a syntactic representation of (28a) would lead to a prosodic mapping in (28b), where the head position taken by the fronted verb and the specifier of the projection that is complement of this head position end up in one and the same prosodic phrase.

(28) a. $[_{TP} [V+T] [_{VP} DP]]$ → syntactic bracketing
 b. $\{ \dots DP \}$ → prosodic bracketing

See Ackema & Neeleman (2004) and Neeleman (2005) for further argumentation on the role of prosodic phrases, and especially the configuration in (27), in relation to spell out procedures.

What I would like to suggest is that in Celtic suppletive forms are only hypothesized by the learner if two conditions are met: (i) V and the subject are in the same prosodic domain (ii) the paradigm of suppletive forms is uniformly faithful to the underlying syntactic representation. If so, the synthetic verb forms are amenable to such an analysis. Given the general VSO order possibility, the subject readily follow the verb, thereby allowing the prosodic bracketing in (28). In addition, the suppletive forms are uniformly faithful to the syntactic representation, as the phi-feature material always follows the lexical verb stem. In

Breton, a subject can also naturally precede the verb and it would still obey the complementarity principle. How do we account for that? If the subject moves to preverbal position, it leaves behind a copy. Under the assumption that synthetic forms are used whenever possible (i.e. they morphologically block the use of analytic forms), the same result obtains after movement. Although the fronted DP is not in the same prosodic domain as V, the lower copy is:

$$(28) \quad \{DP\} \quad \underbrace{\{V \quad \dots \quad DP\}}$$

Hence, synthetic forms never occur with overt pronouns, whether they precede or follow the verb. The situation is different for the forms of *eus*, as the paradigms in Table 1 contain forms where the phi-feature variation happens word-initially (uniformly so in the written language, partly so in spoken Breton). In order to obey the faithfulness requirement, these suppletive forms would have to spell out the verb and a preverbal subject, but these elements are not in the same prosodic domain:

$$(29) \quad \underbrace{\{DP\} \quad \{V \quad \dots \quad DP\}}_{\times}$$

Alternatively, these forms could be taken to spell out the verb and the postverbal subject, but then faithfulness is violated. Since the transparency required for the postulation of suppletive forms is absent, the language learner will be less inclined to analyze the relevant paradigms in Table 1 as a set of suppletive forms but will decide on an agreement paradigm instead. Suppose that this is what has happened at some point in the history of Breton. Then the forms in Table 1 are in essence inflected prepositions and their co-occurrence with overt subjects is expected.¹⁷

In this section, we have combined our new approach to verb movement and cross-linguistic variation in verb placement with the discussion in the literature on the status of agreement in Celtic and argued that both ingredients seem to lead to the same conclusion: VSO orders should not be derived by an agreement-related verb movement. Under the assumption that Celtic has agreement, it does not pattern with Italian, in that the verb can readily cross the subject, when present. Neither does it pattern with Yiddish and Icelandic, as Celtic languages readily allow *pro* drop. We have in addition discussed the opposite assumption, namely that Celtic languages do not have agreement at all, and this straightforwardly accounted for the complementarity principle. In addition, it strengthened our conclusion that Celtic languages lack an agreement-related verb movement.

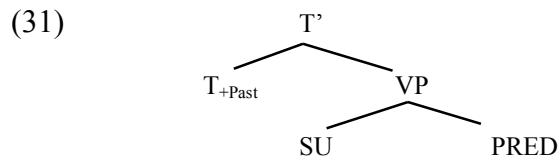
3.2 *The status of tense in Celtic*

In the previous section, we concluded that Celtic languages do not move the verb for reasons pertaining to agreement. This does not leave us with much room to manoeuvre, as we are now led to believe that the verb movement involved must take place to put tense in the right position. This section will try to establish how reasonable such a claim would be.

¹⁷ The element *eus* ‘have’ shows the same distribution as regular verbs and can appear in a *have*-S-O or *S-have*-O order. There are two possible ways of accounting for the *have*-S-O word order. One is to say that verb movement parameters are set on the basis of robust agreement data and that exceptional elements like *eus* are discarded. Its distribution is therefore dependent on the same rules as uninflected verbs. Alternatively, we could assume that the semantics of *have*, both in its possessive and auxiliary use, comes about through incorporation of a preposition into an empty auxiliary *be* (Benveniste 1960, Kayne 1993, Jouitteau & Rezac 2006, a.o.) and it is this movement that gives rise to the *have*-S-O order.

Let us start out by observing that the basic VSO order is perfectly compatible with the assumption that tense should be structurally in a position from which it has scope over the subject and the predicate. This has in effect been our analysis of subject-verb inversion in the Germanic languages as well. Hence, the fact that in Celtic we find finite verbs expressing tense (cf. 30) can be made compatible with the VSO order by adopting the structure in (31).

- (30) Sciob an cat an t-eireaball den luch
 snatch.PAST the cat cul the tail from.the mouse
 'The cat cul the tail off the mouse.'



There is again a Celtic-specific property that necessitates more discussion, however. The fact is that sometimes tense is not expressed by the verb but by a preverbal particle or copula. This is true for main as well as embedded clauses. Examples from Irish (from McCloskey 1996b) are given below:

- (32) a. D' ól sé deoch uisce (main clause)
 PAST drink he drink water
 'He drank a drink of water'
 b. Creidim gu -r fhill sé ar an bhaile (embedded clause)
 I-believe COMP PAST return he on home
 'I believe that he returned home'

The question raised by these examples is the following: If the particle expressing the feature [\pm Past] is generated high in the structure, why would the verb have to move at all? The interface condition on tense would also be met if the verb had not crossed the subject in (32). Why, then, does the verb not stay in situ, like in embedded clauses in Dutch/Norwegian?

One answer provided by the literature is that predicative heads move to prosodically support these tense-marking particles. There is some evidence for that, coming from ellipsis facts. McCloskey (2005) argues that predicates move to the copula, following Carnie 1995. The complement of the position to which the predicate moves can be ellided. The predicate itself (adjectival in (33)) subsequently escapes ellipsis:

- (33) a. An cosúil le taibhe é?
 INTERR.COP like with ghost him
 'Is he like a ghost?'
 b. Is cosúil.
 COP like
 'He is'

McCloskey thus offers a syntactic account, arguing that predicative heads move to the copula in order to offer prosodic support. Additional confirmation comes from conjunction facts. Clauses cannot be conjoined independent of the clause-introducing particle. This is shown in (34):

- (34) a. Deir siad gu-r cheannaigh agus gu-r dhíol siad na tithe
 say they c-PAST bought and c-PAST sold they the horses
 ‘They say that they bought and sold the horses.’
 b. *Deir siad gu-r cheannaigh agus dhíol siad na tithe

The question is why the complementizing particle *gu-r* cannot be merged with a conjunct phrase, consisting of two clauses: (34b) would be grammatical, just like in English (modulo the word order). The ungrammaticality of (34b), McCloskey argues, follows from the Coordinate Structure Constraint. If *gu-r* requires prosodic support from the verb, then (34b) is either out because movement of the verb has not taken place or because it has taken place, in violation of the Coordinate Structure Constraint.

On the basis of this background, we could reach the following conclusion. Celtic languages have a tense-related verb movement, which explains why verbs marked for tense cross the subject (cf. 30). In addition to this, Celtic languages have another motivation for moving the verb, which is at work when the verb is not inflected for tense. The reason for this movement is to lend prosodic support to a particle that is marked for tense and satisfies the interface condition on tense high up in the structure. Whereas Germanic languages have shown that language-specific properties can sometimes make verb movement unnecessary, Celtic languages show us the reverse.

Another conclusion we could reach is that we have not yet pushed hard enough in our attempt to make verb placement in Germanic and Celtic as similar as possible. Is there a way, then, in which we can get rid of the Celtic-specific movement in favour of the one we have to assume anyway, i.e. the movement that takes place in order to project tense features? The answer is yes, but at a cost. There exists another conclusion about the data in (34) in the literature, namely that tense-marking particles and complementizers actually function as prefixes to the verb (Harlow 1983, Sells 1984, Rouveret 1990), based on the observation that “the combination of complementizer, inflectional element and verb-stem is clearly a phonological word” (McCloskey 1996b:53). This allows a different analysis, namely one holding that tense-marking particles are inflectional spell outs of properties of the verb. Under that view, example (34b) is simply ungrammatical because there is no prefix spelling out tense features that the verb has been carrying from the moment it has entered the derivation. It is just as ungrammatical as leaving out a tense or agreement affix on a verb in Icelandic. Besides accounting for the data in (34), it paves the way for a uniform account of verb movement in Germanic and Celtic. In both language groups, the verb moves to project tense features, so as to have it scope over the subject and the predicate. The only difference is that in the Celtic languages the tense features are sometimes spelled out as a prefix rather than as an affix, no doubt related to the nature of the elements that have been reanalysed as suffixes.

There is one important consequence of this view, however. Consider example (32b), here repeated as (35):

- (35) Creidim gu -r fhill sé ar an bhaile (embedded clause)
 I-believe COMP PAST return he on home
 ‘I believe that he returned home’

The embedded predicate is prefixed not only by an element expressing tense features, but also by an element expressing subordination. After all, tense is expressed on the complementizer *gur*, which we now analyze as a prefix. The idea that in Celtic verbs can be inflected for the property [\pm subordination] may not be as outlandish as may seem at first, as the subordinating element can appear lower in the structure than we would expect it.

McCloskey (1996b) convincingly shows for Irish that embedding particles appear below adverbs (italicized in (36)) that are part of the embedded domain, where in English the adverb would follow it.

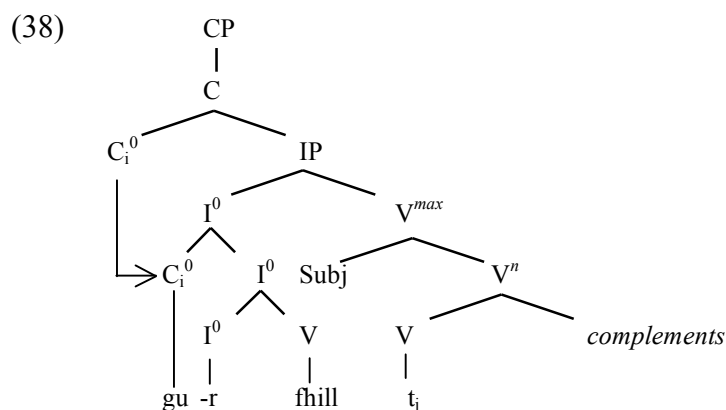
- (36) a. Deiridís [an *chéad Nollaig eile* go dtiocfadh sé aníos]
 they-used-to-say the first Christmas other COMP would-come he up
 'They used to say that next Christmas he would come up'
 b. Is dóiche [faoi *cheann cúpla lá* go bhféadfaí imeacht]
 COP.PRES probable at-the-end-of couple day comp could.IMPERS leave.-FIN
 'It is probable that in a few days it would be possible to leave'
 c. It is surprising that *most of the time* he understands what is going on.

In addition, Irish has a rule of negative narrative fronting, which front a negative constituent that can contain a negative polarity item (npi) like *any*.

- (37) glór ar bith níor chuala sé t
 voice any NEG.PAST hear he
 'He did not hear any voice'

In (37), the licenser of the npi, the negation marker, appears lower in the structure than the npi itself, which is at odds with the general requirement that npi licensing is sensitive to surface scope (cf. *‘A single man didn’t I see’). The conclusion that McCloskey draws from these data is that particles can be syntactically higher than their spell-out position suggests. In order to account for this, McCloskey argues that complementizers undergo C to I lowering at PF. The structure of the embedded clause in (35) would look as in (38). Under the assumption that adjuncts and fronted constituents are adjoined to IP in English and Irish alike, they will appear in front of the lowered complementizer in Irish. Two remarks are in order. First of all, lowering of C to I is only a local operation if it is syntactic. In that case, it simply hops to the first lower head position. As a syntactic operation, however, lowering is problematic and clear cases of head movement to a lower position have not been attested.¹⁸

¹⁸ Many scholars have argued that the subject in languages like Irish and Gaelic is not in a VP-internal position, as in (41), but is a specifier of a functional projection between VP and IP. This is potentially relevant for our theory, as this additional projection would then be created by verb movement and an additional trigger is needed. Although I cannot review all the evidence for this additional functional projection here, I believe that it is not conclusive and by and large dependent on theory-internal assumptions. McCloskey (1996a) for instance takes S-ADV-O orders as evidence for the claim that the subject has moved out of VP, but this conclusion relies on the assumption that the adverb must be merged to a category, VP, that contains the subject. Roberts (2005) argues that subjects can precede or follow the same adverb, but this provides evidence for an additional functional projection only under the assumptions (i) that the subject moves across the adverb and (ii) that the subject moves to a specifier position. Bobaljik & Carnie (1996) argue that Irish has object shift and that therefore the subject has moved out of VP too if it precedes the object, but this evidence relies on the assumption that object shift must follow merger of the subject. In predication theory, the subject is never VP-internal but is adjoined to the VP. Hence, adverbs can in principle be adjoined to VP before or after merger of the subject and objects can move and adjoin to VP before merger of the subject. To obtain the correct word orders, we must of course specify the rules that lead to the right order of merge operations but these are not necessarily more complex than the rules triggering (non-)movement. In fact, they may essentially be the same. See Neeleman (1994) for a base-generation analysis of scrambling that can easily be extended to capture subject-adverb alternations without assuming movement of the subject across the adverb. See Bobaljik (1995) for further arguments against the VP-internal subject hypothesis and against ‘leap-frogging’ analyses of argument movement (i.e. analyses that assume that in object shift the object crosses the subject followed by subject movement across the object).



Alternatively, we could think of lowering as a PF-phenomenon, assuming that this component is capable of spelling out the complementizer on the other side of large adverbs and fronted negative constituents. This is a phonologically non-local operation, however, and hence conceptually undesirable too.¹⁹ Second, the analysis seems at odd with the one provided for the ellipsis data in (33) and (34). There, it was argued that predicative heads undergo raising in order to prosodically support the copula and these syntactic movements explained why the moving heads escape ellipsis. But if preverbal elements can trigger syntactic movement of a lower head for prosodic support, why would PF-lowering ever take place?

An alternative account, compatible with the assumptions entertained here, would be to say the following. The verb is marked for tense and subordination and therefore has to move twice. After the first movement, it projects the tense features and after the second movement, it projects the complementizer features (cf. 40a) or negation (cf. 40b). The results are given in (40):

- (40) a. [CP C+T+V [TP ADV [TP C+T+V [VP C+T+V]]]]
 b. [NEGP NEG-T-V [TP NPI [TP NEG-T-V [VP NEG-T-V]]]]

Hence, the verbal complex moves across the IP-adjoined adverbs in (40a) and it moves across the fronted negative constituent in (40b), thereby licensing the negative polarity item. What is special about Irish is that at PF the decision is made to spell out the intermediate copy rather than the highest one.²⁰ Hence, the affixes spelling out tense, subordination and negation appear after the adverbs and negative constituent. The advantage of this account is that no lowering operation, in any true sense, has to be assumed and that the close tie between verb and particles, shown by (35), (37) and (38) is captured in the same way.

¹⁹ The idea that adverbs, or more in general constituents that are adjoined, are invisible for the PF component is given some theoretical substance in Bobaljik (2002). He argues that adverbs are not invisible but that PF has some freedom in ordering adjoined categories. He relates the examples in (37) to the *do*-support paradigm in English, where adverbs do not seem to hinder I and V from entering into a local relation.

²⁰ In this sense, there is something specific about verb placement in Celtic, although it has nothing to do with verb movement operations themselves. It may be that the verb is spelled out in a lower position because of an intimate relation with the subject, of which the existence of synthetic verb forms testify. Using the now familiar prosodic phrases, Neeleman & Weerman (1999) propose that subjects in Irish receive nominative case at PF, so as to explain the adjacency effects that are absent in regular V2 languages.

3.3 Replacing *V-to-C* movement by *Tense-projecting verb movement*

In the alternative analysis adopted here, there is no abstract structural head position that can be taken by either the complementizer or a fronted verb, since we have eliminated abstract C. Hence, V to C movement no longer exists, at least not in those terms. Of course, we can still say that fronted verbs and complementizers can occupy the same position relative to the rest of the clause and reformulate old insights in these terms (e.g. Den Besten's classical analysis), as I have done above. It seems worthwhile, however, to devote some more attention to the old notion of "V to C movement", as some conclusions in the literature using this notion seem to go against my analysis, if we simply translate V to C movement by Tense-projecting verb movement. McCloskey (1992) and Carnie (1995), for instance, argue against V to C movement in Irish, thereby challenging the unification of Germanic and Celtic. Schafer (1995) argues that Breton is the only modern Celtic language with V to C movement, thereby challenging the unification within Celtic. Let us look at each in turn.

In our analysis, Germanic V to C movement is analyzed as a Tense-projecting verb movement. Using the old terminology, we could say that verb movement in Irish is a V to C type of verb movement. This is exactly the claim that McCloskey (1992) and Carnie (1995) have argued against. For them, the adverbs in (36) are adjoined to IP, just like in English. This means that the verb does not appear *in* the C-position in Irish. Although the data make it clear that the verb in Irish indeed does not move to the classical complementizer position, they do not immediately reveal the nature of the projection which hosts the verb. In fact, one could argue within the old framework that Irish has CP-recursion, hence V to C movement, and assume that adverbs can be adjoined to the functional projection selected by the complementizer (i.e. to a recursed CP in Irish and to IP in English). One could object that such an analysis requires one to assume that adverbs are adjoined to different categories in Irish and English (which I would not necessarily find objectionable), but this criticism does not affect the new framework adopted here. We can say that these adverbs are adjoined to TP, which is the complement of a C-position in Irish and English alike. The main difference between these two languages is the way in which TP is created, by an empty modal in English and by verb movement in Irish.

The idea that the Celtic languages all have a similar type of verb movement (here analyzed as a Tense-projecting verb movement) is challenged by Schafer (1995). She argues that Breton should be distinguished from the other Celtic languages: whereas the latter have V to I movement in declarative clauses, Breton displays V to C movement. Under the assumption that the subject in Celtic languages stays relatively low, both verb movements will cross the subject. It is therefore not easy to show the hypothesized differentiation with respect to the scope of the verb movement. Schafer presents an analogy argument. Breton is the only Celtic language displaying a clear verb second effect reminiscent of Germanic. It is also the only Celtic language in which a conditional clause can be introduced by either a conditional complementizer *ma* or the finite verb (cf. 41). This pattern is reminiscent of the complementarity effect in English conditionals (cf. 42).

- (41) a. Yann a chomje er ger, m'am bije goulet gantan.
 Yann PRT stayCND at home if PARThaveCND1s asked with him
 Yann would stay home if I had asked him
- b. Henez a vije da labourat du-man, am bije goulet gantan.
 that.one PRTbeCND to work house.this PRThaveCOND1s asked with him
 That one would work with our family, had I asked him.

- (42) a. If John were in Paris...
 b. Were John in Paris...
 c. *If were John in Paris...

Since verb second as well as the verb movement in (42b) have been successfully described in terms of V to C movement, we should extend this analysis to clausal structures in Breton, Schafer concludes. Since other Celtic languages lack these similarities to Germanic, VSO structures are best analyzed as involving V to I movement. Hence, Breton verb movement is to a higher position. I do not see that an analysis differentiating the scope of verb movement along the lines suggested is necessary. The weakness of Schafer's proposal is that it provides an analogy argument only, and is therefore only as strong as the analogy. First of all, it is not obvious that (41) reveals a complementarity effect at all. If the conditional particle is not an independent head (like English *if*) but cliticized or even prefixed to the verb (as Celtic complementizers in general), there is no structural complementarity to begin with: Nothing forbids the complex ??? to occupy the same structural head-position as ???. Second, even if we accept that the contrast in (41) shows that the fronted verb and the conditional particle compete for the same high position, the only conclusion we can draw from this is that, in Breton and English alike, this competition occurs *in conditional clauses*. Since English shows subject-verb inversion in conditionals but not in declarative clauses (like in French), one cannot conclude from (41) that Breton moves the verb to the same position in declarative clauses too. We certainly cannot conclude from (41) that verb movement in declarative clauses in Breton is to a higher position than verb movement in declarative clauses in the other modern Celtic languages. The movements could be identical in all relevant respects.

Hence, the presence of verb second effects in Breton is now the essential ingredient of Schafer's analogy argument and for postulating different verb movements in different Celtic languages. Jouisseau (2007), however, shows that the distinction between the V2 behaviour of Breton and the VSO behaviour of Welsh is merely statistical and not categorical. Both languages are best characterized as displaying a ban on V1 structures. They have to realize a declarative clause as X-V-S-O, where in both languages X can either be a head or a phrase. What makes Welsh different from Breton is that it has specialized expletives, *mi* and *fe*, to satisfy the ban on V1 structures, thereby creating the illusion that the language is further removed from the pattern in Germanic than Breton is. In fact, Welsh and Breton are very much alike and can be clearly distinguished from Germanic V2 languages in also allowing heads to precede the verb. Hence, Jouisseau's analysis takes away the hallmark of Schafer's analogy argument, as well as the barrier for treating verb movement in Celtic as essentially involving the same type of verb movement.

4 Conclusion

In this paper, we have looked at verb placement in Celtic from the perspective of the Germanic languages (and, in addition, Italian) and we have tried to make a new contribution to the debate about whether Celtic languages have a V to C or a V to I type of movement. We have seen how this choice becomes less straightforward once we ask what the purpose of these movements is to begin with. More specifically, I have shown that in an alternative and more flexible conception of verb movement, it is perfectly plausible that a V to C and a V to I type of verb movement take place for the same reason: Italian and Dutch both move the verb to project tense features. If the triggers for verb movement are formulated as interface conditions, stated in relational terms, it becomes possible to look at verb placement in Celtic in a novel way. We have subsequently tried to analyze Celtic on the basis of a specific

proposal on verb placement variation in Germanic and concluded that it is very unlikely that Celtic languages have an agreement-related trigger. We have then shown that it is possible to relate verb placement in Celtic to tense and that here one caveat appears. Either we assume that Celtic languages have an additional trigger for verb movement, or we accept the view that preverbal particles are suffixes spelling out features for which the verb is specified once it enters the syntax. Under the latter view, a uniform treatment is achieved of verb placement in Germanic and Celtic.

The proposal, however, has a cost. Although the theory of verb placement is simplified, the morphology has been complicated since we for instance have to assume that verbs in the Celtic languages can enter the syntactic derivation carrying complementizer features. There should be nothing unfamiliar about the conclusion that languages can opt for either syntactic or morphological complexity. After all, some languages mark tense by an affix on the verb, others by means of independent particles. A remaining question, then, is whether adopting this view for the Celtic languages can be upheld in a larger typological comparison. If it turned out that Celtic languages are the only ones that inflect verbs for subordination, the proposal would be suspect. This is not the case, however. Subordinating inflection on verbs is for instance attested in Basque (cf. Hualde & Urbina 2003) where such an element appears as an affix on the clause-final verb of an embedded clause. In many languages, such as Quechua (cf. Adelaar 1988) and Tamang (cf. Mazaudon 2003) subordinating affixes express additional notions having to do with temporality, aspectuality and conditionality, so that a more careful study will have to reveal the place of Celtic in this typology, but for the moment I conclude that we postulate a property for Celtic that is more widely attested in languages.

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