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Null Modals in Germanic (and Romance): Infinitival Exclamatives*

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1 Introduction

First and foremost I shall be concerned with an account of constructions where an inflected verb form is absent in an obligatorily matrix context.[1]

(1) a. Pedro comprar vino (caro)?! No me lo creo!
Peter buy.INF wine (expensive) NEG I CL believe
b. Peter (teuren) Wein kaufen?! Das glaub' ich nicht!
Peter (expensive) wine buy.INF that believe I not
c. Peter buy (expensive) wine?! I don't believe it!

Such an account must take into consideration the syntactic properties involved; the survey presented here leads to motivated assumptions regarding the clause structure of these infinitival constructions to be smaller than TP, subject to principled parametric variation. Moreover, I show that T in these constructions is a deficient functional head and what consequences this fact has on the clause structural properties of such infinitivals.

As such, these constructions can easily be referred to as "Root Infinitives" as has often been done for the (at first sight) identical phenomenon in child language.[2] However, I show that with regard to the adult phenomenon studied here, more is at stake. In particular I argue that a phonetically unrealized modal element is present in these constructions. I identify this element as a modal morpheme which comes in different guises (and different properties) in the three languages discussed in this paper.

Concretely, I argue that these structures are non-finite counterparts of exclamatives and consequently dub the construction-type in (1) "Infinitival Exclamative" (IE). As an indicator of the exclamative interpretation, I use the notation from (1) throughout: punctuation includes a question mark and an exclamation mark (reflecting prosodic and interpretive properties), and where necessary I also include the expression following the IE, the "coda".[3]

2 Modal properties of IEs

In this section, I lay out a number of properties that necessarily go hand in hand with the absence of finite verb forms, concentrating on the modal nature.[4] I suggest that IEs exhibit a modal interpretation of sorts. Consider (2):

(2) a. Pedro besar a Marìa?! No me lo creo!
a'. Peter Maria küssen?! Glaub' ich nicht!
a". Peter kiss Mary?! I don't believe it!

b. Mi jefe subir mi sueldo?! Estés soñando!
b'. Mein Boß mir eine Gehaltserhöhung geben?! Träum weiter!
b". My boss give me a raise?! Dream on!

c. Martin contarnos un cuento gracioso?! Jamés!
c'. Martin uns eine lustige Geschichte erzählen?! Niemals!
c". Martin tell us a funny story?! Never!

The IEs in Spanish, German and English above all share the range of interpretations presented in (3):

(3) a. Peter (could/might/must/should) kiss Mary?!
b. My boss (could/might/must/should) give me a raise?!
c. Martin (could/might/must/should) tell us a funny story?!

They also share the impossibility of the readings suggested in (4):[5]

(4) a. * Peter (did/has/had/is) kiss Mary?!
b. * My boss (did/has/had/is) give me a raise?!
c. * Martin (did/has/had/is) tell us a funny story?!

A modal may thus be understood to derive the interpretation of IEs, but a non-modal may not—especially not when referring to the past, a (possibly) already completed event. I refer to this as the obligatory modal reading in this sense, namely that IEs are understood grammatically as if a modal form were present. I concentrate on the nature of this empty element, much in the spirit of Boser et al.'s (1992) "Null Modal Hypothesis", and its role in IEs.

As Etxepare & Grohmann (2000) show, this modal-like interpretation extends to coordinated structures in which the particular modal reading attributed to one conjunct must extend to the other. Moreover, they provide evidence that the coordinated constructions with an apparently deleted (empty) modal element cannot be instances of gapping or ellipsis.

We can, however, be more exact with respect to finer differences among types of modals. This will also play a crucial role for my assumptions regarding the clausal architecture. Employing a rough adverb hierarchy—such as carefully argued for explicitly by Alexiadou (1997) or Cinque (1999), for example—we can observe that root (5a) or deontic (5b) modal readings are possible, while an epistemic (5c) interpretation is ruled out:

(5) a. Bob besar inevitablemente a Mia (otra vez)?! No creo!
a'. Bob unvermeidlich Mia (wieder) küssen?! Glaub' ich nicht!
a". Bob inevitably kiss Mia (again)?! I don't think so!

b. Pedro comprar eso necesariamente?!
b'. Peter das notwendigerweise kaufen?!
b". Peter necessarily buy that?!

c. * Marìa probablemente ir allì?!
c'. * Maria wahrscheinlich dahin gehen?!
c". * Mary probably go there?!

Grohmann & Etxepare (to appear) show that there is a clear cut between adverbs below TP and those above: only the former may occur in IEs. This also includes various aspectual adverbs, namely all adverbs that can reasonably be assumed to sit lower than TP. As a first stab, then, we can already say with some certainty that IEs maximally project T.

Furthermore, one would expect from examples such as (4) that IEs may only refer to events that did not (or have not yet) take(n) place in the "real" world (i.e. the world shared by the speaker and addressee); we can refer to this as an irrealis truth-condition and moreover specify it as in (9):[6]

(9) *Subject-Oriented Irrealis Truth-Condition*
The speaker of Infinitival Exclamatives underlies a strict truth-condition in that the event expressed in the utterance may not refer to an event that has already taken place in the real world, to the speaker's knowledge of the real world.

I take (9) to be a further indicator of the modal character expressed by these types of IEs, and the preceding overview shall play an important role to determine the peculiarities of the derivation, cross-linguistic differences and impact on clause typing we can observe for IEs in adult grammars.

3 A comparative approach to modal morphemes

Let us now take a look what the modal properties of IEs coupled with preliminary clause structural assumptions might tell us about the cross-linguistic differences in the derivation of IEs; I propose to analyse the underlying modal as a modal morpheme with parameterized properties along the cuts free/bound and verb-relatedness.

3.1 The verb-related free modal morpheme in German

Modal auxiliaries in German possess fully verbal properties which suggests that they are generated inside VP.

Firstly, they may take (i.e. select and/or θ-mark) arguments even when a lexical verb is absent. The English translations indicate the meaning (modal plus full verb) expressed by the particular modals on their own in German.

(10) a. Peter kann die Hausaufgaben.
'Peter <u>can solve</u> the homework.'
b. Maria muss in die Schule.
'Maria <u>must go</u> to (the) school.'
c. Die Studenten dürfen Bier.
'The students <u>may drink</u> beer.'

Secondly, they come in the fully inflected paradigm that lexical verbs do, shown here, and in (28) below for Spanish, for 1st and 3rd person singular as

well as 3rd person plural present tense, 3rd person singular and 3rd person plural past tense and the past participle, respectively.

(11) a. *machen* 'make':
mache, macht, machen, machte, machten, gemacht
b. *können* 'can':
kann, kann, können, konnte, konnten, gekonnt

Thirdly, they occupy the same position as lexical verbs in matrix and embedded clauses as highlighted by the optional lexical verb in (13).

(12) a. Peter macht nicht immer seine Hausaufgaben.
'Peter doesn't always do his homework.'
b. Maria glaubt, daß Peter seine Hausaufgaben macht.
'Maria believes that Peter does his homework.'

(13) a. Peter kann nicht immer seine Hausaufgaben (machen).
'Peter can't always do his homework.'
b. Maria glaubt, daß Peter seine Hausaufgaben (machen) kann.
'Maria believes that Peter can do his homework.'

Fourthly, more than one modal per clause is possible, here underlined.

(14) a. Maria wird um 8 Uhr den Hund ausgeführt haben.
'Maria will have walked the dog by 8 o'clock.'
b. Maria <u>muss</u> um 8 Uhr den Hund ausgeführt haben <u>können</u>.
'Maria must have been able to walk the dog by 8 o'clock.'

Based on these properties, it is not unreasonable to assume that modals in German are generated in VP and not inside their own projection "ModP" (though there is motivation for ModP to be present and serve a purpose, as we will see presently in the discussion of English and Spanish). We can thus roughly schematize the structure of the German VP as follows:[7]

(15) $[_{VP}$ SU V_{inf} $(Mod_{inf}*)$ Mod_{fin} OB]

If modal verbs may select or even θ-mark their arguments as argued above, it is not unreasonable to assume that they also "license" (i.e. check) Case, or

any other relevant grammatical feature that forces argument-movement (see below). Especially in (10), the modal is the only verbal, the only inflected element and thus the only possible Case-licenser of the clause.

I take the irrealis interpretation to be part of the clause type (i.e. "exclamative") coupled with the presence of a "null modal". However, rather than stipulating a complete modal that merely lacks phonetic content (as Boser et al. 1992 suggest, cf. Grohmann 1998), the relevant feature for these constructions is satisfied by the modal morpheme; we can identify this as a clause-typing feature, expressing exclamative force, as I lay out in section 4.

3.2 The non-verbal free modal morpheme in English

I will now show that English modals are not verbal at all.

Firstly, they cannot take arguments (analogously to (10) above).

(16) a. * Peter can the homework.
b. * Maria must to school.
c. * The students may beer.

Secondly, they are only finite, and only come in one form.

(17) a. *go*: *go, goes, went, gone*
b. *must, can, shall, should, may, might*
c. * *must: must, musts, musted/most, musted/mist*

Thirdly, under neutral intonation, they occupy a different position from lexical verbs.[8]

(18) a. Peter doesn't <*do> always <do> his homework.
b. Peter <*does> always <does> his homework.
c. Peter can't <*do> always <do> his homework.
d. … that Peter <*does> always <does> his homework.

Fourthly, in Standard English only one modal per clause is permitted.

(19) a. Peter might do his homework.
b. Peter might have done his homework.

(20) a. * Peter might can may do his homework.
b. Peter might be allowed to be able to do his homework.

From this we can deduce that modal verbs in English are not generated in VP. Two possible structural positions for their generation come to mind: they may be merged from the lexicon into a specific position from which they then move to T to check tense or they may be directly merged into T. Due the fact that IEs bear a certain modal reading but arguably lack temporal properties, I opt for the former: the English modal is a lexicalized Mod-head which has to move to T to check tense—independent of the verb (which, in fact, does not move; and should it turn out to move, it does not move as high as T). Attraction of Mod by T and the presence of only one T per clause captures the "singularity constraint" as well as the finite properties of modals.[9]

We can capture this with the structure in (21) where Mod^0 indicates the position for root modals generating it in English (cf. Cinque 1999):

(21) $[_{TP}\ [_{T'}\ T^0\ [_{ModP}\ [_{Mod'}\ Mod^0\ [\ldots\ [_{VP}\ SU\ [_{V'}\ V^0\ OB]]]]]]]$

If subject raising takes place for reasons of Case-checking at TP, we can safely assume that modals are appropriate Case-checkers once Mod raises to T; if this movement takes place for other reasons, we must assume that the modal is an appropriate checker. In either case, movement of the subject to SpecTP seems to be obligatory and the arising checking configuration with the modal is legitimate. In these cases the verb remains in its VP-internal position.

(22) $[_{TP}\ SU_j\ [_{T'}\ Mod^0{}_i\text{-}T^0\ [_{ModP}\ [_{Mod'}\ t_i\ [\ \ldots\ [_{VP}\ t_j\ [_{V'}\ V^0\ OB]]]]]]]$

With respect to IEs, we would have to say that no modal can be present on T in any form as this head is (severely) deficient. Corroborative evidence comes from the contrast in examples such as (23-24), where the subject is marked Accusative, not Nominative, in the grammatical constructions:[10]

(23) a. * She kiss Peter?
b. * He give me a raise?

(24) a. Her kiss Peter?
b. Him give me a raise?

Following standard assumptions that Nominative is checked in a spec-head relationship in TP, coupled with the absence of T in IEs, we can safely assume that the subject must sit in a position below SpecTP. On the other hand, the adverbial evidence suggests that it has moved out of its base-generated position. I identify this position as the specifier of ModP, where the modal (morpheme) is generated, thus accounting for the structural configurations with lower aspectual adverbs and somewhat higher root modal adverbs. The exact functional projections we might have to assume shall not be of immediate concern. It suffices to note that between VP and TP there is room for certain adverbs as well as ModP. We can also treat T as being deficient in the sense that IEs are non-finite and very restricted in temporal reference. One consequence is the lack of Nominative Case-checking. I assume that deficient T lacks a specifier (see Castillo et al. (1999), Grohmann et al. (2000), and also Epstein & Seely (1999).

Evidence from adverbs seems to suggest further that this is correct: those adverbs related to Mood (higher than Tense; cf. Cinque 1999) and TP itself are impossible in IEs, unlike aspectual (or verbal/manner) adverbs.

(25) a. * Helmut luckily win the elections?! Will never happen!
b. * The Germans then demonstrate?! Not those people!
c. * Hillary perhaps divorce Bill?! Not during his term!

(26) a. Maria usually get up at 6am?! That's news to me!
b. Peter study well?! Not as far as I know!
c. Donald marry Ivana again?! I don't think so!

3.3 The non-verbal bound modal morpheme in Spanish

Spanish modals are not as verbal as German modals are, but certainly exhibit more freedom than their English counterparts, as illustrated in the following.

Firstly, they cannot take arguments (like their English counterparts).

(27) a. * Pedro poder la tarea.
*'Peter can the homework.'
b. * Marìa deber a la escuela.
*'Maria must to the school.'
c. * Los estudiantes poder cerveza.
*'The students may beer.'

Secondly, they come in all inflected forms that verbs do (as German (11)).

(28) a. *comprar* 'buy':
compro, comprar, compran, compraba, -ban, -do
b. *poder* 'can':
puedo, puede, pueden, podìa, podìan, podido

Thirdly, they occupy the same position as lexical verbs in matrix and embedded clauses.

(29) a. Pedro no hace siempre su tarea.
'Peter doesn't always do his homework.'
b. Pedro hace siempre su tarea.
'Peter always does his homework.'
c. Pedro no puede siempre hacer su tarea.
'Peter can't always do his homework.'
d. Marìa cree que Pedro siempre hace su tarea.
'Maria believes that Peter can always do his homework.'

Fourthly, more than one modal occurrence is also legitimate in Spanish.

(30) a. Marìa habré paseado al perro para las 8.
'Maria will have walked the dog by 8 o'clock.'
b. Marìa debe haber podido pasear al perro para las 8.
'Maria must have been able to walk the dog by 8 o'clock.'

These properties I take to indicate that Spanish modals do not originate in VP due to their lack of selecting arguments directly; however, it is feasible that they originate in a position lower than TP with subsequent movement to T, as not only more than one modal is possible, but also as they come in a number of different forms (including the tense- and finiteless infinitive).

Evidence that the Spanish modal morpheme needs lexical support (unlike English or German) comes from IEs:

(31) a. Comprar Pedro un caballo?! Qué locura!
'Peter buy a horse?! Impossible!'
b. El vino comprarlo Pedro?! Qué locura!
'The wine, Peter buy (it)? Impossible!'

What (31a) shows us is that Spanish infinitives move out of VP; (31b) shows that this position must be in the C-domain, as IEs allow topics.[11] Thus, the Spanish constructions employ verb movement to a high position, possibly all the way up to C—that includes through Mod, where it picks up the (null) modal morpheme. Anticipating parts of the analysis, the modal morpheme has to end up high in the clause which it can without lexical support in German and English, where it is a free morpheme; the fact that it obligatorily takes the verb with it in Spanish suggests that it is a bound morpheme.

To present the Spanish equivalents of the structures shown above, consider (32) as illustrating possible derivations of Spanish (matrix) clauses:

(32) a. $[_{TP}\ [_{T'}\ T^0\ [_{ModP}\ [_{Mod'}\ Mod^0\ \ldots\ [_{VP}\ SU\ [_{V'}\ V^0\ OB]]]]]]$
b. $[_{CP}\ XP\ [_{C'}\ [Mod^0{}_i\text{-}T^0]_j\text{-}C^0\ [_{TP}\ [_{T'}\ t_j\ [_{ModP}\ [_{Mod'}\ t_i \ldots [_{VP}\ \ldots]]]]]]]$

(32a) illustrates the generation of lexical elements in the clause structure up to T; (32b) goes one step further, including movement of the modal to T in finite contexts (where the content of VP is identical to that in (32a); also, the initial XP may also be the subject, indicating the well-known optionality of pre- and post-verbal subjects in Spanish, an issue that shall absolutely not be of concern[12]). Note that while formally identical to (22) in English, this representation is only valid in case the modal is phonetically expressed, as in (29c), for example. Crucially, the verb raises rather high, presumably some C-related head (cf. Kayne 1991; Grohmann & Etxepare, to appear).

3.4 Summary

We will see below, especially section 4.2, how these structures relate to IEs in Spanish, German and English. It should be noted up front, though, that we already have some evidence that the infinitival verb in Spanish fills a different, higher position than it does in German and English. The discussion of German modals above suggests that if a (phonetically null) modal morpheme exists, it is a free morpheme, i.e. it need not always have lexical support. Under this conception, the "null modal" in German is a free modal morpheme which has verbal properties (meaning that it is generated in V); in English it possesses little verbal character which I take to indicate that it is generated outside VP, a position I further identified as Mod. Raising of the modal to T in finite constructions suggests that modals are quite independent of verbs.

4 Relating IEs to syntax, structure and grammar

Next, I explore how the results obtained so far fit in to allow a construal of the complete structure of IEs and point towards their place in the (adult) grammar.

4.1 Some further syntactic properties and the role of CP

The ungrammaticality of topicalization in Germanic IEs suggests a serious deficiency, if not even absence altogether, of CP (or any more articulate structure in this domain à la Rizzi 1997). But in Spanish the equivalent construction is good, so it is reasonable to assume that Spanish makes available a topic-related position to which the fronted XP in IEs may move. Compare:

(33) a. * Die Wahlen Helmut gewinnen?! Diesmal bestimmt nicht!
b. * The elections, Helmut win?! This time round certainly not!

(34) a. Las elecciones ganarlas Helmut?!
the elections win.INF.CL Helmut
b. De Juan reirse Pedro?!
about John laugh.INF Peter
*'John, Peter laugh at/about?!'

Note, however, that the initial XP must be fronted by movement and not be base-generated there. Ungrammatical instances of clitic left dislocation, hanging topics coreferent with an epithet and the 'as for'-construction, all unambiguously derived by base-generation (Cinque 1990), illustrate this point:

(35) a. ?? Juan, reirse Pedro de él?!
John laugh.INF Peter about him
*'John, Peter laugh at him?!'
b. * Juan, el tio comprarse un Ferrari?!
John the guy buy.INF a Ferrari
*'John, the guy buy a Ferrari?!'
c. * En cuanto al tennis, ese deporte gustarme a mí?!
in regard to-the tennis that sport like.INF to me
*'As for tennis, me like that sport?!'

Hoekstra & Hyams (1998) point out that the ungrammaticality of topicalization is rather unexpected under Boser et al.'s (1992) null modal approach: if the null modal sits in C, it should make available a specifier position. Under the current approach we are not forced into this impasse (see also Grohmann 1998). The modal morpheme is not a null equivalent of a fully inflected auxiliary element. Moreover, topicalization is not excluded per se, as can be witnessed by Spanish. We would have to relate the absence of topicalization in Germanic and the possibility of (movement-induced) fronting structures in Spanish otherwise, such as presented in section 4.2 below.

The incompatibility of IEs and Wh-movement offers further evidence for a deficiency or even absence of CP, or C-related functional projections:

(36) a. * Que (Pedro) comprar (Pedro)?!
b. * Was Peter kaufen?!
c. * What Peter buy?!

These data suggest that an operator-position in the C-domain is not permitted in any IE, further supporting the idea of a split CP à la Rizzi (1997) where topics and Wh-elements target different positions (and moved topics differ in their position from base-generated topics).

Hoekstra & Hyams' (1998) objection to the null modal approach on the basis of these data are based on the same reasoning: a null modal in C should make available a SpecCP position for Wh-movements. Even under the not unreasonable assumption that Boser et al. (1992) make—that the null modal is crucially related to the subject in its specifier—Hoekstra & Hyams (1998) counter with the absence of Wh-subjects in infinitival root constructions:

(37) a. * Quién comprar un Volkswagen?!
b. * Wer einen Volkswagen kaufen?!
c. * Who buy a Volkswagen?!

We will see that under the present approach this ungrammaticality is predicted, as is the optionality of a (non-interrogative) subject which Hoekstra & Hyams (1998) add to the catalog of problems. Nothing in the derivation hinges on a filled subject position. Interpretive differences incur, of course, but these are obviously discourse-controlled, as the appropriate and inappropriate codas indicate (for convenience illustrated with English only):

(38) a. Vote for Helmut?! Peter is such an idiot! [= Peter voting]
b. Vote for Helmut?! I'd never do that! [= speaker voting]
[≠ Peter voting]

In sum, the objections to the null modal approach that Hoekstra & Hyams (1998) list are theory-internal to the technical particulars of Boser et al.'s (1992) proposal. Space does not permit a more detailed discussion (see Grohmann 1998), but it becomes clear that the constructions we have seen in this section point to a deficiency in the C-domain that I account for next.

4.2 Clause types and syntactic derivations of IEs

Finally, I want to put all the pieces together and propose the individual derivational steps to create IEs in English, German and Spanish. Crucial to do so is, on the one hand, an accurate idea of what the clause structure looks like and, on the other, how to associate the syntax to the clause type exclamative.

With respect to the former, we have reached well-motivated assumptions discussed so far; part of the analysis concerns an underlying, phonetically not realized modal morpheme. This was argued to be the formal feature contained in every overt modal element that participates in IEs without lexical support. We have seen how the three languages differ with respect to its form. Consider (39), basically the structures argued for so far:

(39) a. $[_{CP}$ XP $[[V^0{}_i\text{-}Mod^0]_j\text{-}T^0]_k\text{-}C^0$ $[_{TP}$ t_k $[_{ModP}$ t_j $[_{VP}$ SU t_i OB]]]]
b. $[_{TP}$ T^0 $[_{ModP}$ SU $[MM]_i\text{-}Mod^0$ [OB t_i $[_{VP}$ t_{SU} V t_i t_{OB}]]]]
c. $[_{TP}$ T^0 $[_{ModP}$ SU [MM]-Mod^0 $[_{VP}$ t_{SU} V OB]]]

The VPs are combined as laid out in section 3, including the place of insertion of the modal morpheme (MM). In essence, the arguments move as they standardly would in the particular language with the exception that the subject position SpecTP in finite structures is not the subject position in these non-finite structures which we already identified as SpecModP.

In Spanish (39a), the verb raises out of VP.[13] On its way it picks up the modal morpheme which, as a bound and non-verbal morpheme in Spanish, is inserted into the functional head Mod. This complex head raises further to a (possibly slightly deficient) C-head which in turn makes available one specifier position for a topicalized element (see the discussion in section 4.1 above).

In German (39b), the modal morpheme is merged with V, where the lexical verb of the clause is generated which is in its infinitival form. As all arguments have to leave VP in both matrix and embedded contexts, the subject and possible object(s) raise to particular specifier positions in what I call the T-domain (Grohmann 2000a, 2000b). The modal feature raises to Mod to license the modal, without pied-piping the verb as the modal morpheme is free and does not need verbal support. It serves as the feature-checker for the arguments in their respective positions. Further functional projections are not possible (put aside those possibly needed for certain adverbs that may appear in IEs if we follow Cinque 1999), and thus the final stage of the construction is at the level of ModP with every feature satisfied except the clause type.

In English (39c), finally, the subject raises to SpecModP to be in a typical (specifier-head) checking configuration with the modal morpheme which, as a free but non-verbal morpheme, is inserted here. No further movements are necessary, yet the question how the clause type specification "exclamative" (and its respective properties) is derived remains yet to be addressed.

I now discuss briefly a clause-typal implementation for IEs where I assume critically an abstract (complex operator-like) feature that goes with each clause type (see Grohmann 1999 for details); for exclamatives I propose [E], as a shorthand notation, which sits in the left-peripheral head C where clause-outwards information is expressed.[14] A more careful study can be found in Grohmann & Etxepare (to appear) where, although under a different name, the impact of [E] is made more explicit semantically and syntactically, also taking other properties into consideration (such as the role of the coda).

Assuming four classical clause types which we can, following Lyons (1977) and Palmer (1986), refer to as declarative (the syntactic form of the semantic [S]tatement), interrogative (the syntactic form of the semantic [Q]uestion), imperative (the syntactic form of the semantic com[M]and) and also exclamative (the syntactic form of the semantic [E]xclamation). The letters in square brackets shall represent our abstract feature that expresses the clause type, an amalgamation of formal (syntactic) and functional (semantico-pragmatic) properties. Concentrating on exclamative, and its sub-class IE, the following short exposé shall illustrate a first sketch of clause-typal syntax.

Observing that languages tend to employ either clause-typing particles or special head (often verbal) positions, and neither Romance nor Germanic fall into the former category, we can envision [E] (and on analogy, the other three clause-typing features) to be part of C which expresses the force of a clause.

(40) $[_{CP}\ [_{C'}\ C^0[E]\ ...\ [_{TP}\ ...]]]$

Commencing our derivations depicted in (39), the next and final step is movement of an appropriate element to check [E]; this shall be the modal morpheme. As [E] crucially relates clause-inwards, i.e. to the information of the clause (besides the information about the clause), I take it to be "strong": it needs to be checked prior to Spell-Out. As a first stab at a generalization about overt movement to C, we might say that it has to take place obligatorily in imperatives and exclamatives, not in declaratives and interrogatives, or in other words, whenever the clause-type cannot be expressed below CP by checking of other features. (For additional evidence on overt movement, see Etxepare & Grohmann 2000 where conjunction of IEs is discussed).

Movement of the modal morpheme Mod to C creates a possible checking relation (head-adjunction). I suggest that the modality of the clause is satisfied by the modal morpheme in C, resulting in an irrealis reading. Moreover, the information expressed to the outside is now legitimized; without further discussion, this is not contingent on movement to C in many other constructions which might be very much related to the absence of finiteness. In Spanish, Mod is a bound morpheme and needs lexical support. This motivates the overt movement of the infinitival verb to Mod and subsequently to C, again for reasons that should by now be obvious.

We can capture the final result as follows, leaving out possible sites for adverbs, where (41) correlates to (39):

(41) a. $[_{CP}\ (XP)\ [[V_{inf}\text{-}Mod]_i\text{-}C^0[E]]\ [_{ModP}\ t_i\ [_{VP}\ SU\ t_{inf}\ OB]]]$
b. $[_{CP}\ Ø\ [Mod_i\text{-}C^0[E]]\ [_{ModP}\ SU_k\ t_i\ [\ OB_j\ t_i\ [_{VP}\ t_k\ V_{inf}\ t_i\ t_j]]]]$
c. $[_{CP}\ Ø\ [Mod_i\text{-}C^0[E]]\ [_{ModP}\ SU_j\ t_i\ [_{VP}\ t_j\ V_{inf}\ OB]]]$

5 Conclusion

I have presented arguments that the well-known but yet little understood infinitival root construction in Germanic and Romance adult registers should be understood as involving a phonetically unrealized modal morpheme. This morpheme has different properties across languages but does the same work in all: it moves to a left-peripheral position, traditionally known as C, to license the clause type of the construction which I identified as a sub-class of exclamatives and hence dubbed the construction Infinitival Exclamative, or IE.

As such, IEs contain an [E]-feature which expresses not only the clause-typal information in general, but also the internal specification: namely most importantly, non-finiteness and irrealis mood. Non-finiteness is also realized in the syntactic derivation by the absence of related heads (i.e. the particular heads referring to T(ense), M(ood), Fin(iteness) among others). Irrealis is expressed by a "null modal"; this element is in fact the modal morpheme connected to modal auxiliaries for whose quasi-independence there is plenty of independent evidence. The modal feature is merged into the derivation at a language-particular point (V in German, Mod in English and Spanish) from where it moves to C. Being a bound morpheme in Spanish, it pied-pipes the verb; as a free morpheme in English and German, it does not. The result is that Spanish IEs contain a moved infinitive that ends up in C, possibly preceded by one element. German and English do not make any phonetically expressed material available in the C-domain and underlie stricter restrictions.

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Notes

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[1] I investigate these constructions in Spanish (for the Romance part), English and German (as the Germanic representatives), following the pattern in (1) throughout, when possible: a-examples are Spanish, b-examples German and c-examples the corresponding English forms.

[2] See, among many others, Rizzi (1993/4), Wexler (1994), Lasser (1997), Schütze (1997) and most recently, with a competent overview of the issues, Hoekstra & Hyams (1998). This paper deals exclusively with the construction type illustrated in (1) as it occurs in adult language. Here, the most prominent study is Akmajian's (1984) who labeled these constructions "Mad Magazine" sentences (also Avrutin 1999).

[3] Space does not permit a careful study of the coda, but see Grohmann & Etxepare (to appear) for a detailed syntactic and semantic analysis of this part of infinitival root constructions.
[4] For other syntactic, semantic and pragmatic properties, see Grohmann & Etxepare (to appear) and the extensive list of references cited.
[5] Arguably, the future may be employed as well which can be regarded as modal of sorts, at least in the sense adopted here, namely referring to an event that may or may not take place in some world, but crucially has not yet taken place. I leave deeper worries for further research.
[6] In the interest of space, I refer the interested reader to Hoekstra & Hyams (1998) for the original and Grohmann (1999) for an extended discussion of this property.
[7] Adopting Zwart's (1993, 1997) and subsequent approaches to Westgermanic clause structure, I take all projections to be head-initial and all DP- and PP-arguments to obligatorily move out of their base-generated VP-positions in the overt syntax (which presumably takes places covertly in English).
[8] I follow Cinque (1999) also in that in principle adverbs do not move around but stay in their base-generated position. In this sense, *always* in (24a,b) is a good indicator that 'dummy *do*' and 'real *do*' do not share the same position. This well-known characterization can be read in detail in Arnold (1995), for example, where an approach to lexicalized heads very much in the sense proposed here is explicitly argued for.
[9] Recall that only one modal may be present in English, here termed "singularity constraint" for convenience. The rationale behind this is that both T and Mod bear the same features which have to be checked overtly (the traditional notion of a "strong feature"); failure of checking the feature off by either head would result in a crash of the derivation due to an unchecked feature.
[10] In German and Spanish, the subject is marked Nominative. We might want to link this fact to the notion of "default case" which could possibly correspond to the "citation form" a particular language employs (as David Lightfoot pointed out to me). This happens to be Nominative in German and Spanish but Accusative in English. Earlier stages of English expressed the citation form with Nominative, as attested by Visser (1963: 237ff.), for example.
[11] We will see below that Spanish differs in that it allows topic-like elements to appear to the left of the infinitive; I indicate this by "XP" in (38c) below; see Grohmann & Etxepare (to appear) for more details.
[12] Note that the initial XP may also be the subject which presumably need not target SpecTP. There is little consensus on the Spanish subject regarding both its surface position and its base-generated position. For present purposes it shall be sufficient to assume that it may appear pre- or post-verbally, and that at least one of these occurrences may refer to SpecCP and SpecVP. (I refer the reader to Ordóñez (1997) and references given there for more on Spanish subjects and clause structure.)
[13] For arguments that it raises very high, even if infinitival, see Kayne 1991, extended in Grohmann & Etxepare, to appear.
[14] Instances of the following correlation of clause types and abstract features are given in Grohmann (1999). Aside from illustrating all other clause types, the relation of IEs to other instances of exclamations is also briefly discussed. It remains yet to be seen in how much this correlation is borne out, but prima facie it appears that [E] is also present and hence to be checked in Wh-exclamatives, alternative exclamatives and even those exclamations that do not contain any verb forms at all. A more intricate version is presented in Grohmann & Etxepare (to appear), but a discussion of exclamatives and the role of the C-domain can also be found in Portner & Zanuttini (in press).

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