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## TOWARDS A SYNTAX OF ADULT ROOT INFINITIVES\*

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### 0. *Introduction*

Our attention focuses on the syntax of constructions like (1) in Romance and Germanic where an infinitival construction is used in a matrix context:<sup>1</sup>

- (1) *Pedro comprar vino?! No me lo creo!*  
Peter buy-INF wine NEGCL CL believe  
“Peter buy wine?! I don’t believe that!”

Traditionally, these structures are known as ‘Root Infinitives’ (RIs) and we follow this usage.<sup>2</sup> Employing evidence from adverb compatibility and placement, absence of (most) left-peripheral phenomena and the properties of the subject in RIs, we propose a basic syntactic structure for RIs smaller than TP, allowing for controlled variation for languages that raise infinitives.<sup>3</sup>

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<sup>1</sup> To save space, all examples are given in Spanish (Romance) with their English (Germanic) counterparts marked for grammaticality in the translation and the coda often omitted. ‘INF’ stands for infinitive, ‘CL’ for clitic, ‘REFL’ for reflexive and ‘NEG’ for negative marker.

<sup>2</sup> In Grohmann & Etxepare (to appear), we argue that these RIs are exclamatives; Akmajian (1984), who first brought this construction to the attention of (generative) linguists, made a parallel to imperatives, while Lasser (1997a,b) argues for a variety of clause type interpretations. Much work has been done on the properties of RIs in child language, but we have to leave a discussion of this, employing the current proposal, for future work.

<sup>3</sup> This paper is only concerned with the syntactic properties of RIs which fits in nicely with recent theorizing on adverb syntax and clausal structure. The semantic properties of RIs and also of the coda are explored in Grohmann & Etxepare (to appear) in considerable detail.

### 1. *Syntactic properties*

RIs as an adult phenomenon have been discussed in considerable depth by Akmajian (1984), Lasser (1997a,b), Grohmann (1999), Avrutin (to appear), Grohmann & Etxepare (to appear), among others. The following serves as an overview of the most salient properties of these constructions, as they apply to RIs in both (adult) English and Spanish.

#### 1.1 *Adverb placement*

Adverbs implying a propositional argument (Bellert 1977) are ruled out:

- (2) a. \**El Athletic afortunadamente ganar la liga?!  
the Athletic luckily win-INF the league  
“\*Athletic luckily win the league ?!”*
- b. \**Los bilbainos entonces apiñarse en la ría?!  
the hooligans then meet-INF-REFL in the river  
“\*The hooligans then meet along the river?!”*
- c. \**Su presidente quizás arengar a la afición?!  
their president perhaps cheer.up-INF to the fans  
“\*Their president perhaps cheer up the fans?! No way!”*

Adverbs compatible with a root modal interpretation are possible in RIs, as well as subject-oriented adverbs (Jackendoff 1977); epistemic modal adverbs, on the other hand, are generally bad:

- (3) a. *Pedro comprareso necesariamente?!  
Peter buy-INF that necessarily  
“Peter necessarily buy that?! I don’t think so!”*
- b. *Juan besar inevitablemente a María otra vez?!  
John kiss-INF inevitably to Mary again  
“John inevitably kiss Mary again?!”*
- c. *Comprar yo eso a proposito?!  
buy-INF I that to purpose  
“Me willingly buy that?!”*
- (4) \**María probablemente ir allí?!  
Mary probably go-INF there  
“\*Mary probably go there?!”*

As expected on the basis of (3), other aspectual adverbials are perfectly acceptable in RIs, implying that the lower adverbial structure is not deficient:

- (5) a. *Maria levantarse habitualmente a las seis?!*  
 Mary rise-INF-REFL usually at the six  
 “Mary usually get up at 6am?! I don’t believe that!”
- b. *Pedro estudiar detalladamente este tema?!*  
 Peter study-INF thoroughly that topic  
 “Peter study this topic thoroughly?!”
- c. *Pedro casarse con Ana otra vez?!*  
 Peter marry-INF-REFL with Anna again  
 “Peter marry Anna again?!”

Syntactically, the adverbs above spread across the clause. Implementing properties of an adverb hierarchy as explored by Alexiadou (1997) and Cinque (1999), the positions we have to assume for the adverbs shown vary from structurally low, to mid and high. The following illustrates a first stab:

- (6) a. Helmut [<sub>VP</sub> win the elections smoothly]?!  
 b. The Germans [<sub>Asp1P</sub> often demonstrate]?!  
 c. Hillary [<sub>Asp2P</sub> finally divorce Bill]?!

Following the standard assumption that this class of adverbs adjoins rather low in the clause structure, the data in (6) suggest that the infinitive in English remains in VP, while it raises to a higher position in Spanish (cf. (5)). Likewise, room for adverbs (regardless of whether they are adjoined or specifiers) up to the root modal position must be integrated, but not beyond.<sup>4</sup>

### 1.2 *Left periphery*

The adverbial evidence suggests that the C-domain of RIs is deficient by not allowing C-related adverbs such as epistemic ones (cf. McDowell 1987). Before exploring lower parts of the structure, and thus providing a proper syntactic analysis of RIs, we will dwell a little on the C-deficiency.

For starters, Wh-questions are not permitted in RIs. Concentrating on information questions, (7) exemplifies their deviance in RIs:

- (7) \**Quièn comprar un Volkswagen?!*  
 who buy-INF a Volkswagen  
 “\*Who buy a Volkswagen?!”

<sup>4</sup> Temporal adverbs are allowed in RIs if they have future reference. Deictic temporal adverbs of the past are not permissible in English, unlike non-deictic (“frame-setting”) adverbs, but they are in Spanish. See section 3 and Grohmann & Etxepare (to appear).

Syntactically, this suggests a structural deficiency of the C-layer. We have already seen that RIs have an upper structural bound in (root) modal phrases. Following Ormazabal (1995), we argue that complementizerless clauses denote eventualities, not propositions (Grohmann & Etxepare, to appear). In the light of this, the unavailability of Wh-questions in RIs may also have a semantic reason: if RIs denote eventualities, they are not predicted to occur as questions, whose semantics involves propositions (Karttunen 1977), an idea pursued by Hoekstra & Hyams (1998).

However, Spanish seems to allow Wh-phrases in infinitival root contexts:

- (8) a. *Què compraren navidades?*  
 what buy-INF in Christmas  
 “What \*(to) buy for Christmas?”  
 b. *A quiè regalar un peluche?*  
 to whom give-INF a doll  
 “Who \*(to) give a doll to?”

However, the context of constructions like (8) is not identical to the one of RIs as they do not admit overt subjects:<sup>5</sup>

- (9) a. *\*Què compraryo en navidades?*  
 what buy-INF I in Christmas  
 “\*What I/me (to) buy for Christmas?”  
 b. *\*A quiè regalar Pedro un peluche?*  
 to whom give-INF Peter a doll  
 “\*Whom Peter (to) give a doll?”

In fact, they are equivalent to English Wh-questions which contain the overt infinitival marker *to*, which are analogous to the embedded ones in (10):

- (10) a. I don’t know [what to buy for Christmas].  
 b. I know [whom to give a doll].

Obviously, these are control structures (in the absence of an overt subject) and we can safely assume that Wh-questions are not permitted; this supports the cross-linguistic data from child language (see Guasti & Rizzi 1996 for a recent overview and Grohmann & Etxepare, to appear for discussion).

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<sup>5</sup> We indicate the difference of this construction by adding *to* to the translation in (8)-(9).

On the non-interrogative side of CP, left dislocation (LD) gives us a further clue as to what parts are deficient, and how the two languages under consideration may differ. In (11) we show that Spanish RIs may involve a fronted, i.e. topicalized argument; this fronted element, however, may not be base-generated in this position, as in the case of hanging topics.

- (11) a. *De Juan reirse Pedro?!*  
 about John laugh-INF-REFL Peter  
 “\*John, Peter laugh at?!”
- b. *?Juan, reirse Pedro de èl?!*  
 John laugh-INF-REFL Peter about him  
 “\*John, Peter laugh at him?!”

A related case is that of epithets. In these instances it is even more obvious that the fronted element cannot have moved to its position but must have been base-generated in the left periphery (see Cinque 1990 and others); *as for*-topics in Spanish, another “hanging” category, are also bad in RIs:

- (12) a. *\*Juan, el tío comprarse un Ferrari?!*  
 John the guy buy-INF-REFL a Ferrari  
 “\*Juan, the guy buy a Ferrari?!”
- b. *\*En cuanto al golf, ese deporte gustarme a mí?!*  
 in regard to golf that sport like-INF-CL to me  
 “\*As for golf, me like that sport?!”

(13)-(14) show that in Spanish this construction may not appear in subjunctive complements, although it can in indicative dependents of verbs of saying and epistemic verbs that select “Double Comp” structures (Uriagereka 1988), as do other root elements (such as speech act adverbs):

- (13) *Pedro dice/\*quiere que el golf, ese deporte me guste.*  
 Peter says/wishes that the golf that sport CL like  
 “\*Peter says/wishes that golf, that sport I like.”
- (14) a. *Pedri quiere que (\*francamente,) te vayas.*  
 Peter wants that frankly CL you-leave  
 “Peter wants that (\*frankly,) you leave.”
- b. *Pedro dice que francamente que no esta tranquilo.*  
 Peter says that frankly that NEG he-is at-ease  
 “Peter says that (\*frankly,) he is not at ease.”

The facts in (11b)-(14) constitute further evidence for a deficient structure in the C-domain: while Spanish RIs allow one constituent to be fronted (11a), this constituent may not be base-generated there.

We also have reasons to believe that a TP-external Foc(us)P (argued for Spanish by e.g., Campos & Zampini 1990, Uriagereka 1995b) is absent. Consider in this regard (15), where focus (FOC) is indicated by capitals:

- (15) \**BROCCOLI*    *comprarel?!  
           broccoli-FOC    buy-INF he  
           “\*BROCCOLI he buy?!”*

### 1.3 Clausal structure

In section 1.2 we have seen good evidence that CP must be absent in RIs (whether a simple structure or a more articulated layer as in Rizzi 1997). This was also a hypothesis building on the placement of adverbs from section 1.1. There we have also seen that certain adverbs are disallowed in RI-contexts, and that these adverbs constitute a uniform class, namely structurally “high” adverbs (as per Jackendoff 1972, Alexiadou 1997, Cinque 1999). Can we then further assume that the T-domain is (somehow) deficient?

Given the impossibility of high adverbs as well as the prime fact itself—that RIs are inherently non-finite—this seems a sure guess. However, while we have seen evidence that the infinitive in English RIs stays inside VP and the Spanish one raises, we must also account for the fact that the subject raises from its VP-internal position, as placement of low adverbs suggests.

Following current minimalist assumptions (Chomsky 1995, 1998), the specifier of TP is the obvious candidate where nominative case and the EPP are presumably checked. However, the RI-subject cannot have raised to its usual position; whatever its exact position, it does not check nominative case:

- (16) a.    She/\*Her can usually get up at 6am.  
       b.    \*She/Her usually get up at 6am?!

In regular, finite declaratives, the subject is obligatorily marked for nominative, while it receives accusative case in (English) RIs; accusative is the “unmarked case” in English, also known as the ‘citation form’, and the subject shows up in nominative case in other languages such as Swedish or German, and also Spanish.<sup>6</sup> The subject thus cannot be in SpecTP.

<sup>6</sup> This was already noted by Akmajian (1984). It might be noteworthy to point out that older stages of English employed nominative as the citation form (cf. Visser 1963:237ff.).

Let us take a closer look at the clausal structure of RIs. We know that it is somewhat impoverished in that it lacks a Wh-projection (possibly FocP) and a position for base-generated topics (possibly ForceP or TopP in Rizzi 1997.) The fact that the Comp layer is lacking in these constructions can also account for the impossibility of modification by epistemic modals, if epistemic modals must raise at LF to a scope position (McDowell 1987; also Progovac 1994:78-79) and this position is Comp or some related projection.

Looking at the structure of RIs, then, we can easily maintain that they contain a regular VP, while movement out of it to check grammatical functions (such as Case) is limited. As we will show in section 3.2, and assume throughout, Tense is severely deficient in RIs. We take one correlate of T-deficiency to be the absence of a specifier (see Castillo et al. 1999 for detailed discussion and also Epstein & Seely 1999).

We can make a cut along Cinque's (1999) suggestion, namely that certain Asp-heads and a VP-external subject-position that fails to assign nominative case are present, whereas projections related to the C-domain are absent. As for the subject position, we also have evidence for the presence of ModP (hosting modal adverbs such as *necessarily*; cf. (3)) and suggest that the subject raises to this position where it is realized with "default" case.

Let us thus assume the following rough maximal structure for RIs:

$$(17) \left[ {}_{TP} T^0 \left[ {}_{ModP} \text{subj}_i \text{Mod}^0 \left[ {}_{Asp1P} \text{adverb} \left[ {}_{Asp2P} \text{adverb} \left[ {}_{VP} t_i \text{verb object} \right] \right] \right] \right] \right]$$

The fact that the subject in English RIs may precede some adverbs but not others accounts for the structure (17); see also the discussion around (6) above.<sup>7</sup> (17) is the structure that both English and Spanish share, given the adverbial evidence thus far. Additional facts have to be integrated for Spanish, such as raising of the infinitival verb and the possibility of a topic.

## 2. *Some differences*

Beyond their common properties, RIs in English and Spanish show a number of differences, both semantic and syntactic. In the following, we address some of the syntactic differences in some detail (see Grohmann & Etxepare, to appear for an elaboration as well as a formal semantic analysis).

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<sup>7</sup> Given (17), one might ask how to rule out modals such as *can*, *must* etc. in English RIs and at the same time allow for the occurrence of *be allowed to*. Obviously, the intrinsic finiteness of the former, but not necessarily the latter, forces movement to  $T^0$  (given that both types of modal elements are generated in  $\text{Mod}^0$ ). This temporal head, however, is deficient in RIs as we argue and thus does not allow overt finite elements.

### 2.1 *Temporal interpretation*

As noted by Lasser (1997b:43), RIs cannot occur in perfective tense nor can they be interpreted with perfective aspect.

- (18) \**Helmut haber ganado las elecciones en 1994?!  
 Helmut have-INF won the elections in 1994  
 “\*Helmut have won the elections in 1994?!”*

However, temporal adverbs of the frame-setting type are admissible:<sup>8</sup>

- (19) *Juan leer esas cosas en aquellos tiempos?!  
 John read-INF those things in old times  
 “Back in the old days, John read that sort of thing?! I doubt it!”*

An important difference in the interpretation is that RIs in English are impossible with deictic past temporal adverbs, but possible in Spanish:

- (20) *Los aficionados juntarse mañana/ayer/el año pasado?!  
 the fans meet-INF-REFL tomorrow/yesterday/last year  
 “The fans meet tomorrow/\*yesterday/\*last year?!”*

This difference motivates the complex syntax of RIs presented in section 3 and discussed in quite some detail in Grohmann & Etxepare (to appear).

### 2.2 *Topic constructions*

As we have already seen in (11a), English does not admit topicalization, while Spanish does; Spanish also allows clitic left dislocation of the sort shown in (21), for which there is good reason to believe that the left dislocated element is actually moved analogously to topics proper.

- (21) *Las elecciones ganarlas Helmut?!  
 the elections win-INF-CL Helmut  
 “\*The elections, Helmut win?!”*

We propose that Spanish possesses an extra functional projection between TP and CP that English lacks (Uriagereka 1988, 1995a, 1995b and others). This position hosts, among others, (clitic left-dislocated) topics.

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<sup>8</sup> By ‘frame-setting’ we refer to an interpretation of (19) along the lines “When John was a toddler...” or “Back when John only read trash novels he’d never read Chomsky” etc.

### 2.3 Subject properties

In this section, we will argue that in Spanish, but not English, the infinitive raises at least as high as  $T^0$ . In Spanish, but not in English, the position to the left of the infinitive can only be occupied by those elements that otherwise can be topicalized in a finite sentence.

Consider first the possible topic expressions in Spanish finite clauses. Non-restricted and negative quantifiers as well as purely indefinite and non-specific expressions make bad topics (Cinque 1990, Uriagereka 1995b).

- (22) a. \**Toda clase de instrumento, Pedro (lo) maneja.*  
           every type of instrument Peter CL plays  
           “\*Every type of instrument, Peter plays (it).”  
       b. \**A nadie, Juan no ha invitado.*  
           to nobody John not has invited  
           “\*Nobody, John invited.”  
       c. \**Uno cualquiera, yo no (lo) he visto pasar.*  
           Just anyone I NEG CL have seen pass  
           “\*Just anyone, I have not seen him pass by.”

If these elements may not be topics and if the first position in Spanish RIs is necessarily a topic-position, we expect that the fronted elements in finite structures such as (22) would also be ungrammatical as subjects of non-finite RI-constructions. Indeed, this prediction is borne out:

- (23) a. \**Toda clase de gente comprarun Volkswagen?!*  
           every type of people buy-INF a Volkswagen  
           “Every kind of person buy a Volkswagen?!”  
       b. \**Nadie comprarun Volkswagen?!*  
           Nobody buy-INF a Volkswagen  
           “Nobody buy a Volkswagen?!”  
       c. ??*Uno cualquiera comprarun Volkswagen?!*  
           just anyone buy-INF a Volkswagen  
           “Just anyone buy a Volkswagen?!”

On the other hand, they may appear in RIs, namely following the verb:

- (24) a. *Comprar toda clase de gente un Volkswagen?!*  
       b. *No comprar nadie un Volkswagen?!*  
       c. *Comprar uno cualquiera un Volkswagen?!*

Note that nothing in the interpretation of RIs disallows non-topicalizable quantifiers to occur as subjects. The English equivalents of the structures in (24) are grammatical as indicated in the translations: while in Spanish they must follow the infinitive, in English these elements must occur before.<sup>9</sup>

This, in turn, leads us to conclude that English RIs feature a low infinitive (inside VP) and little structure above certain adverbs. For Spanish we have evidence that the subject may appear post-verbally (inside VP) or pre-verbally, in which case it presumably occupies the same position as topics.

Also, frequency and duration adverbs must follow the infinitive in Spanish, while they must precede the verb, yet follow the subject, in English:

- (25) a. \**Pedro a menudo comprar manzanas?!  
 Peter often buy-INF apples  
 ‘Peter often buy apples?!’*
- b. \**Pedro a veces comprar manzanas?!  
 Peter sometimes buy-INF apples  
 ‘Peter sometimes buy apples?!’*
- (26) a. *Pedro comprar a menudo manzanas?!  
 \*‘Often Peter buy apples?!’*
- b. *Pedro comprar a veces manzanas?!  
 \*‘Sometimes Peter buy apples?!’*

Mutatis mutandi, this supports the assumption that the infinitive does not raise in English RIs; it also suggests that the subject moves out of its VP-internal base-generated position.

#### 2.4 Infinitival raising

In Spanish, we have evidence to say that the verb raises even higher than  $T^0$ . Kayne (1991) presents three arguments in favour of a high landing site for the infinitival verb in several Romance languages, among them Spanish.

Firstly, Kayne’s interpretation of the order infinitive-clitic, as we can observe in (27) below, is that the infinitive has raised beyond  $T^0$ . His actual technical proposal (that the infinitive is adjoined to T’) is incompatible with minimalist assumptions regarding phrase structure (Chomsky 1995); we will therefore follow Uriagereka’s (1995a,b) reinterpretation of Kayne’s facts as showing raising to a position that he identifies with a projection immediately below  $C^0$  and higher than  $I^0$ , that he calls  $F^0$ .

<sup>9</sup> To the extent that (these) quantifiers are acceptable in English in the first place; there exists variation in judgements (e.g., compare the data in Akmajian 1984 with Hyams 1996).

Secondly, infinitival movement vs. absence thereof derives the different orders of Spanish (27a) and Italian (27b), on the one hand, and French (27c), on the other (see Kayne 1991 for a broader comparative perspective):

- (27) a. *Hablarle seria un error.*  
 talk-INF-CL would-be a mistake
- b. *Parlargli sarebbe un errore.*  
 talk-INF-CL would-be a mistake
- c. *Lui parler/\*parler-lui serait une erreur.*  
 CL talk-inf/talk-INF-CL would-be a mistake  
 “Talking to him would be a mistake.”

On the assumption that  $F^0$  is not “active” in French (in the sense suggested and supported in Uriagereka 1995a<sup>10</sup>), there is no motivation for raising the infinitive. If the French infinitive moves, it moves to a lower position, presumably to a functional head in the T-domain.

Thirdly, the high position of the infinitive prevents PRO from being governed by the lexical complementizer in Spanish and Italian, but not in French:

- (28) a. *Juan no sabe si ir PRO al cine.*  
 John NEG knows if go-INF to-the movies
- b. *Gianni non sa se andare PRO al cinema.*  
 John NEG knows if go-INF to-the movies
- c. \* *John ne sait pas si PRO aller au cinema.*  
 John NEG know NEGif go-INF to-the movies  
 “John doesn’t know whether to go to the movies.”

If the position of the infinitive blocks government of PRO by the lexical complementizer, then the infinitive must c-command the pronominal, therefore it must be higher than PRO. The equivalent construction is ungrammatical in French and this points to a lower position of the infinitive.

<sup>10</sup> Uriagereka (1995a) investigates the placement of clitics in Western Iberian dialects. He concludes that clitics are deficient in the interpretation of their phi-features, in particular the person-feature. Elements which are deictically deficient are raised to a clause-peripheral position, where they are anchored to the discourse or to a c-commanding argument if they are embedded. As such, ‘FP’ can be seen as a projection that fixes the deictic interpretation of context dependent expressions. Uriagereka (1995b) shows how a functional projection of this sort serves as a host to a range of context-dependent elements, such as clitics or topics.

Assuming Uriagereka's interpretation of Kayne's generalization, we conclude that the infinitive in Spanish raises to a position external to TP, that we will also call F (29a); English lacks this further projection (29b):

- (29) a.  $[_{FP} (S) [_{V+Mod+T}]_i -F^0 [_{TP} t_i [_{ModP} PRO t_{V+Mod} [_{VP} (S) t_{V-INF} \dots]]]]]$   
 b.  $[_{TP} T^0 [_{ModP} S Mod^0 [_{VP} \dots V-INF \dots]]]$

This conclusion is at least compatible with the facts concerning RIs. This difference between Spanish and English will be instrumental in deriving the different temporal properties of RIs in the Romance and Germanic area.

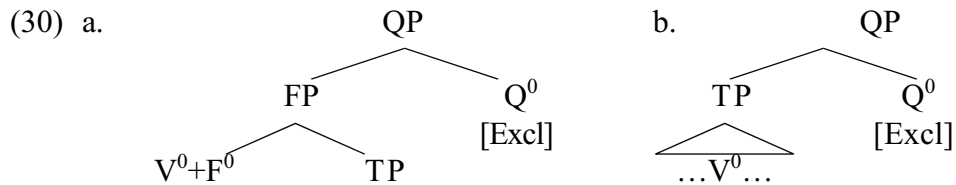
### 3. *Syntactic analysis*

Recent Davidsonian theories of argument structure suggest that the argument structure of a predicate (whether a verb or a derived nominal) includes an event argument that must be discharged in a higher projection (e.g., Ormazabal 1995). In most of these views, it is Tense which discharges the event argument, resulting in the interpretation of the sentence as an eventuality-denoting TP (as also argued by Ormazabal).

However, the presence or absence of Tense projections, and consequently the possibility of having or not having temporal modifiers seems to be subject to parametric variation. The issue is interesting from a learnability point of view, since the relevant parameter is not, in this case, related to any variance in overt inflectional morphology. Deictic temporal modification is possible in Spanish and impossible in English (cf. (20)), but in both English and Spanish, RIs lack any morphologically realized functional projection for Tense. We want to argue that the analysis of RI constructions as tripartite quantificational structures advanced in Grohmann & Etxepare (to appear), coupled with a syntactic parameter involving verb movement, successfully accounts for the differences between English and Spanish.

Let us now come back to the differences between English and Spanish. Recall that among the syntactic differences we found between Spanish and English is the fact that in Spanish the verb raises very high, whereas in English it remains in situ. The basic structure internal to RIs independent of verb movement is that in (17), while the next step in the derivation, parameterized depending on verb movement, is (29). We have shown that these structures correctly account for and predict the (non-)placement of various adverbs, subject properties and the absence of C-related structures. Moreover, (29a) also correctly allows a moved topic-like position such as the preverbal element in Spanish RIs.

What remains to be shown is that RIs make available deictic temporal adverbs only in languages where the infinitive raises to F, the functional head above (deficient) T. Assuming that RIs are interpreted as a separate (exclamative) clause type, it is not unreasonable to assume a more intricate structure, roughly as in (30); see fn. 2 and Grohmann & Etxepare (to appear) for discussion of the semantics, syntax and clause-typing properties of RIs.



Let us assume that what bears the event variable in the clause structure is the verb. The relative position of the verb vis-à-vis Tense is important: a perfective Tense and its associated definite marker will only block coindexing with the event variable if the verb is under the scope of Tense. But we saw that in Spanish, the infinitive raises high, to some position outside of TP, and therefore outside the scope of the perfective Tense and the associated definiteness marker. Verb movement frees up the event variable for coindexing with the exclamative operator.

The prediction that arises from this proposal is that the availability of modification by deictic temporal adverbs should only be possible if the infinitive raises higher than Tense. For English, we saw that the prediction is borne out; for other languages, see Grohmann & Etxepare (to appear).

4. *Conclusion*

Our goal was to show that RIs exhibit a deficiency in their functional structure, a deficiency that we characterized as the absence of the CP-layer and the absence of a specifier for Tense. In languages like English, where the infinitive does not raise, the maximal (overtly filled) structure is ModP, licensing all types of adverbs in that part of the structure. Only these adverbs are also allowed in languages where the infinitive raises high, such as Spanish, which we account for by infinitival movement to F, a functional head above TP. This movement further allows an additional preverbal specifier which we argued can only be a moved constituent such as a topic in Spanish. A more complex structure accounts for cross-linguistic variation with deictic temporal adverbs but we refer to Grohmann & Etxepare (to appear) for a more careful discussion which also includes a semantic analysis.

## REFERENCES

- Akmajian, Adrian. 1984. "Sentence Types and the Form-Function Fit". *Natural Language and Linguistic Theory* 2.1-23.
- Alexiadou, Artemis. 1997. *Adverb Placement: A Case Study in Antisymmetric Syntax*. Amsterdam: John Benjamins.
- Avrutin, Sergey. To appear. *Developments of the Syntax-Discourse Interface*. Dordrecht: Kluwer.
- Bellert, Irena. 1977. "On Semantic and Distributional Properties of Sentential Adverbs". *Linguistic Inquiry* 8.337-351.
- Campos, Hector & Mary Zampini. 1990. "Focalization Strategies in Spanish". *Probus* 2.47-64.
- Castillo, Juan Carlos, John Edward Drury & Kleanthes K. Grohmann. 1999. "The Status of the Merge over Move Preference". *University of Maryland Working Papers in Linguistics* 8, 63-103.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge: MIT Press.
- , 1998. "Minimalist Inquiries: The Framework". *MIT Occasional Papers in Linguistics* 15. Cambridge: MITWPL. To appear in *Step by Step* ed. by David Michaels, Roger Martin & Juan Uriagereka. Cambridge: MIT Press.
- Cinque, Guglielmo. 1990. *Types of A-bar Dependencies*. Cambridge: MIT Press.
- , 1999. *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Oxford: Oxford University Press.
- Epstein, Samuel David & Daniel Seely. 1999. "On the Non-Existence of the EPP, A-Chains and Successive Cyclic A-Movement". Ms., Univ. of Michigan, Ann Arbor & Eastern Michigan Univ., Ypsilante.
- Grohmann, Kleanthes K. In press. "Infinitival Exclamatives". *University of Maryland Working Papers in Linguistics* 8, 213-238.
- Grohmann, Kleanthes K. & Ricardo Etxepare. To appear. "Root Infinitives: A Comparative View". *Probus*.
- Guasti, Maria-Teresa & Luigi Rizzi. 1996. "Null AUX and the Acquisition of Residual V2". *Proceedings of the Boston University Conference on Language Development 20* ed. by Andrew Stringfellow, Dalia Cahana-Amitay, Elizabeth Hughes & Andrea Zukowski, 284-295. Somerville: Cascadilla Press.

- Hoekstra, Teun & Nina Hyams. 1998. "Aspects of Root Infinitives". *Lingua* 106.81-112.
- Hyams, Nina. 1996. "A Formalist Perspective on Language Acquisition" Paper presented at the *Formal and Functional Approaches to Language Conference*, held in Madison, Wisc.
- Jackendoff, Ray. 1972. *Semantic Interpretation in Generative Grammar*. Cambridge: MIT Press.
- , 1977. *X-Bar Syntax*. Cambridge: MIT Press.
- Karttunen, Lauri. 1977. "The Syntax and Semantics of Questions". *Linguistics and Philosophy* 1.3-44.
- Kayne, Richard S. 1991. "Romance Clitics, Verb Movement, and PRO". *Linguistic Inquiry* 22.647-686.
- Lasser, Ingeborg. 1997a. *Finiteness in Adult and Child German*. Ph.D. Dissertation, City Univ. of New York, Graduate Center.
- , 1997b. "The Interpretation of Root Infinitive Constructions in Adult and Child German". *The Interpretation of Root Infinitives and Bare Nouns in Child Language* ed. by Jeannette Schaeffer, 26-64. Cambridge: MITWPL.
- McDowell, Joyce P. 1987. *Assertion and Modality*. Ph.D. Dissertation, Univ. of Southern California, Los Angeles.
- Ormazabal, Javier. 1995. *The Syntax of Complementation: On the Connection of Syntactic Structure and Selection*. Ph.D. Dissertation, Univ. of Connecticut, Storrs.
- Progovac, Ljiljana. 1994. *Negative and Positive Polarity: A Binding Approach*. Cambridge: Cambridge University Press.
- Rizzi, Luigi. 1997. "The Fine Structure of the Left Periphery". *Elements of Grammar: Handbook of Generative Syntax* ed. by Liliane Haegeman, 281-337. Dordrecht: Kluwer.
- Uriagereka, Juan. 1988. *On Government*. Ph.D. Dissertation, Univ. of Connecticut, Storrs.
- , 1995a. "Aspects of the Syntax of Clitic Placement in Western Romance". *Linguistic Inquiry* 26.79-123.
- , 1995b. "An F Position in Western Romance". *Discourse Configurational Languages* ed. by Katalin È. Kiss, 153-175. Oxford: Oxford University Press.
- Visser, Fredericus T. 1963. *An Historical Syntax of the English Language, vol. 1*. Leiden: E.J. Brill.