

CARTOGRAPHY OF POSTVERBAL SUBJECTS IN SPANISH AND CATALAN

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Abstract

Subjects in post-verbal position in Romance have been assumed to be in an *in situ* Spec VP position in many recent analyses in their V S O order (Motapayane 1995, Ordóñez 1998, Costa 2000, Alexiadou & Anagnostopoulou 2001, Cardinaletti 2001). In this paper, we will give arguments for an alternative view in which post-verbal subjects in this order are moved to at least to an Spec positions above VP, which I will call SubjP, and below the final landing site of verbs in TP. Arguments in favor of this characterization come from the comparison of Catalan and Spanish, which differ minimally in patterns of subject inversion with respect to quantifiers, adverbs and restructuring contexts. This work presents new evidence that a richer inflectional structure in the postverbal field leads to a more parsimonious account for parametric difference in patterns of subject distribution in closely related languages.

Keyword: postverbal subjects, cartography, adverbs, quantifiers, restructuring.

1. One versus two postverbal subject positions.

Spanish postverbal subjects, like Portuguese ones (Ambar 1992, Costa 2000) and Romanian ones (Motapanyane 1995), can appear in more than one position when they appear with other complements. Subjects can appear before or after DP objects or PP complements:

- (1) a. Hoy comprará Juan comida. (VSO)
today will buy Juan a meal
b. Hoy comprará comida Juan. (VOS)
Today will buy a meal Juan
'Juan will buy the meal today.'
- (2) a. Hoy hablará Juan de Barcelona.
today will speak Juan about Barcelona'
b. Hoy hablará de Barcelona Juan.
'today will speak about Barcelona' Juan
'Today, Juan will speak about Barcelona.'

This variability in the available positions of subjects is not restricted to argumental complements. Adjectivals in small clauses can show the same possibilities as in examples in (3):

- (3) a. En Irak resultaron varias personas heridas.
 In Irak resulted various people injured
 b. En Irak resultaron heridas varias personas
 In Irak resulted injured various people.
 'In Irak, a number of person were injured.'

Similarly, subjects might precede or follow infinitivals depending on modal verbs:

- (4) a. Por fin puede Juan dormir.
 At last can Juan to sleep
 b. Por fin puede dormir Juan.
 At last, can to sleep Juan
 'At last, Juan can sleep.'

Alexiadou and Anagnostopoulou (2001) and Ordóñez (1998) assumed that subjects that precede complements and predicates represent the *in situ* order in which subjects project thematically higher than other complements and predicates:

- (5) [[_{VP} SUB [VP NP/PP/ADJ]]]

In this paper I consider an alternative view in which subjects are displaced to a higher inflectional projection which I will consider to be Spec SubP. Under this alternative view subjects equally precede complements but subjects are not in their *in situ* thematic position:

- (6) [SubjP SUB_i [_{VP} t_i [NP/PP/ADJ]]]

The crucial question is whether subjects are in the same position or not in both alternating orders in (1-4). In the *in situ* proposal one can assume that complements and predicates move optionally above VP to yield the alternating orders:

- (7) [VP SUB [NP/PP/ADJ]]


The alternative proposal in (8) can account for the alternation if two subject positions are involved. There is a higher SubjP and a lower Focus P according to Belletti and her analysis of postverbal subjects in Italian. Complements and predicates must necessarily move to a higher projection than Focus P, as has been proposed by Jayaseelan (2000) Zubizarreta (1998).¹ The alternating orders are a result of whether a higher SpecSubjP or a lower Spec FocP is occupied by the subject.

- (8) [Spec SubP [FocusP SUB [DO/PP]]]


¹ In the case of Zubizarreta(1998) these movements are prosodically motivated. In the case of Jayaseelan (2000) this movement is just a licensing movement of complements to their canonical order in Malayalam.

In this paper I will show that alternative (6) is empirically superior to the *in situ* approach, and it can better account for the parametric differences between Spanish and Catalan.

1.1. Catalan and Spec SubjP

Catalan, contrary to Spanish, does not allow the variability we saw above for Spanish. Catalan postverbal subjects must precede complements and predicates. This is shown in the following contrasts reported in the literature (Solà 1992, Roselló 2002, Vallduví 2002):

- (9) a. *Avui comprarà en Joan el menjar.
 Today will buy en Joan the lunch.
 b. Avui comprarà el menjar en Joan.
 Today will buy the lunch Joan.
 'Today, Juan will buy the lunch.'

Catalan does not allow subjects to precede predicates of subcategorized small clauses of raising verbs as shown in (11):

- (10) a.*Avui van resultar molts soldats ferits.
 Today were many soldiers injured
 b. Avui van resultar ferits molts soldats.
 Today were injured many soldiers
 'Today, many soldiers were injured.'

And Catalan does not allow subjects between modals and infinitives (Picallo 2000). Subjects must follow the infinitive as shown in the following contrasts:

- (11) a.*Finalment pot en Joan dormir.
 Finally can Joan to sleep
 b. Finalment pot dormir en Joan.
 Finally can sleep en Joan
 'Finally, Joan can sleep.'

Thus, the *in situ* hypothesis for the alternating orders of complement and postverbal subjects, must make movement obligatory for Catalan but optional for Spanish. Alternatively, if one assumes that two different positions for subjects are at play, the parametric variation is reduced to the fact that the higher Spec SubjP position is not made available in Catalan. We have a notable example in the literature in Germanic in favor of this second line of analysis. Bobaljik and Jonas (1996) proposed that a higher postverbal Spec TP is made available in Icelandic but not in English Transitive Expletive Constructions (TEC).

- (12) *There has someone eaten an apple.

- (13) Það hafa margir jólasveinar borðað buðing.
 there have many Christmas trolls eaten pudding
 'Many Christmas trolls have eaten pudding.'

Our proposal is to extend this distinction beyond Germanic and beyond Transitive Expletive constructions. The Spec SubjP hypothesis claims that subjects are higher in the V S Complement orders. In the next sections I turn to evidence that shows that this is the case for Spanish subjects when they precede complements.

1.2 Leftward movement of quantifiers and the position of the subject.

A very important observation that confirms that subjects are higher than VP is shown by testing the position of subject with respect to complements that are known to have moved to the left of the VP. For instance, Kayne (1975) shows that quantifier *tout* in French, contrary lexical DP's, must necessarily move further to the left of past participles:

- (14) Jean a [tout] mangé [*tout].
Jean has all eaten [*all]
'Jean has eaten everything.'

Spanish does not show the order in (14) because it seems that past participles in Spanish must move further to the left of the moved quantifier than French past participles (see Nicolis 2001 for similar observation in Italian).

- (15) Juan se lo había comido todo.
Juan to him it had eaten everything
'Juan has eaten everything.'

However, as pointed out by Rizzi (1996), there is a way to test movement of the quantifier *todo* to the left when we observe its interaction with the manner adverbs 'well' *bien* and 'bad' *mal*. Since these adverbs are to the left edge of the VP, we expect *todo* to necessarily move left of the adverb as shown in (16):

- (16) a. (lo) hace todo bien EL.
it make all well He
'Pedro makes it all well'
b. Lo ve todo claro EL.
It sees all clear He
'Pedro sees it all clearly'

Observe that the alternative order is ungrammatical:²

² For some speakers the sentence might be available only under a right dislocation reading of the subject. The fact that there is not contrast for those speakers is not relevant since we might have a focus reading of *TODO* in sentence (17). The important contrast for this hypothesis is when *bien* and *todo* are not focused there is a relevant contrast on the order in which they appear. The contrasts are clearer in sentences with a negative quantifier and infinitive.

- (i) Por no hacerlo todo bien NADIE.
(ii) *Por no hacerlo bien todo NADIE.

- (17) a. *?Aquí (lo) hace bien todo EL.
 Here it makes well all HE
 b. *?Aquí lo ve claro todo EL.
 Here It sees clear all HE

The contrast above clearly shows that as in French and Italian, object quantifier *todo* must move to the left of manner adverbs. In these constructions, we observe that subject floating quantifiers must precede object quantifiers:

- (18) a. Las estudiantes lo hacen todas todo bien.
 The students-FEM it do all-FEM everything well
 b.*Las estudiantes lo hacen todo todas bien.
 The students-FEM it do everything all-FEM well
 'The students all do everything well well.'

- (19) a. Mis compañeros lo hacen ambos todo bien.
 My classmates it do both all well
 b.*Mis compañeros lo hacen todo ambos bien.
 My classmates it do all both well
 'My classmates both do everything well.'

Similar to the behavior of floating quantifiers, subjects must precede the quantifier *todo* in these contexts as shown in the contrasts in (20):

- (20) Ayer lo hizo/encontró Juan todo bien.
 Yesterday it did Juan all well
 b.*Ayer lo hizo/encontró todo Juan bien.
 Yesterday it did/found all Juan well
 "Yesterday Juan did/found everything well"

The facts make us conclude that subjects are not *in situ* in these examples but they are further to the left than adverbs and the moved quantifier *todo*. Thus, the data points out to the analysis in which subjects move to SubjP, which is higher than the landing site of the quantifier:

- (21) [SubjP Juan[todo [bien [VP
 ^_____

As expected Catalan disallows subjects in those same positions:

- (22) a.*Ahir ho van fer els nois tot bé.
 yesterday it made the boys all well
 'Yesterday the boys made it all well'
 b.*Ahir ho va fer en Joan tot bé.
 Yesterday it made Joan all well
 'Yesterday Joan made everything well'

Since Spanish subjects are in a higher Spec SubjP position, we expect them to license floating quantifiers in any lower inflectional projection the subject has been through. The prediction is borne out as shown in the following example³:

- (23) Entonces trataban mis vecinos cuidadosamente ambos
a su hija.
Then treated my neighbors carefully both
their daughter
'My neighbors both treated their daughter carefully.'

The structure would be analyzed as follows:

- (24) [TP trataban [SubjP mis vecinos [vP cuidadosamente [vP
ambos [VP a su hija

1.3. The special behavior of pronominals and the Auxiliary *have* Plus Past Participle.

Rizzi (1996) and Ordóñez (2000) point out that the sequence of finite auxiliary *have* plus past participle cannot be broken up by the subject:

- (25) *Ayer no nos lo había tu hermana dicho.
Not not to us it had your sister said
'Your brother had not told us.'

In this respect Spanish clearly differs from Icelandic (TEC) where subjects in Spec TP position are above past participle according to Jonas and Bobaljik (1996):

- (26) Það hafa jólasveinar borðað búðing.
there have many Christmas trolls eaten pudding

The differences between Icelandic and Spanish simply show that past participles in Spanish move higher than past participles in Icelandic. As we saw in the previous section, the contrast above recalls the contrast found between French and Italian with respect to the distribution of object quantifier *tout*. Thus, Italian does not permit *tutto* to interfere between auxiliary and past participle according to Nicolis (2001):

- (27) *Gianni aveva tutto mangiato. (from Nicolis 2001)
Gianni had all eaten

³ Other relevant examples that show the same point:

- (i) Por no hablar los profesores pacientemente todos a sus respectivos
estudiantes.
For not speaking the professors patiently all to their respective
students.

For some speakers the sentences seem to be degraded or ungrammatical. I assume that this deviance is related to the fact that in those dialects Floating quantifiers are not allowed in an in situ position inside the VP complex.

Similarly, the contrast between Icelandic and Spanish suggests that the landing site of subjects in Spec SubjP Spanish is below the landing site of past participles, while it is higher in Icelandic:

- (28) [Auxiliary Have [Past participle [SubjP subject]]] (Spanish)
 [Auxiliary Have [TP subject [Past participle]]] (Icelandic)

However, not all types of subjects are banned from such a position. Sánchez López (1993) points out that the pronominal subject *usted* can naturally appear between the auxiliary and the past participle. The same observation can be extended to other pronouns⁴:

- (29) Había usted dicho que lo lograría. (From Sánchez López 1993:281)
 Have you said that I would do it
 'You had already said that you would do it.'

- (30) Ya les había yo dicho a éstos que....
 already had I said to these people that
 "I had already said to these people that..."

The special behavior of subject pronouns recalls the special behavior of object pronouns in Scandinavian with respects to object shift. For instance in Swedish only pronouns are able to undergo object shift (Holmberg and Platzack 1995):

- (31) Johan läste *boken / den [inte t] [Swedish]
 Johan read the book/it not
 'Johan didn't read the book'

The difference between pronominal and not pronominal elements has been taken by Johnson (1991) as evidence that this type of pronouns can move further to the left. For instance the contrasts in English in (32) can be understood as a case in which the pronouns are so far to the left that the participle always appear to its right.

- (32) a. John threw it over
 b. *John threw over it

Therefore, it is logical to analyze (29) and (30) as examples in which this pronoun has shifted further to the left than the final landing site of the past participle.

⁴ The contrasts between pronominals and lexical DP's disappears with a different modality. Lexical DP's are allowed in (i):

- (i) En caso de que hubiera el lector percibido alguna contradicción entre
 In case that the reader had-subj perceived any contradiction
 between...

If subjunctive and modals move higher than indicative ones, the facts suggest that a higher modal projection is involved in these examples. Subjects might be also licensed in this higher modal projection, contrary to subjects in pure indicative clauses.

(33) [Auxiliary Have[Subject pronominals [Past participle [SubjP]]]]

The pronominals that appear between the auxiliary *have* and the past participle can be considered to be weak pronouns in the sense of Cardinaletti and Starke (1999). Some tests prove that they behave like weak pronouns. For instance, they resist coordination and modification in this position⁵:

- (34) *a. Había usted y él dicho que lo lograría.
 had you and he said that he would make it
 'You and he had said that you would make it'
 b.* Había sólo usted dicho que lo lograría.
 had only you said that he would make it
 'Only you had said that you would make it'

Catalan lacks the licensing of this subject shift altogether as shown in(35):

- (35) *Havia vostè dit que ho aconseguiria.
 Had you said that you will make it
 ' You had said that you will make it'

1.4 Manner adverbs

An additional argument for having subjects in a higher position comes from the interaction between subjects, determinerless objects and manner adverbials. Manner adverbs might intervene between the determinerless DP and the verb as shown in the following Spanish examples:

- (36) a) No sabía que pintase bien cuadros.
 Not knew that painted well pictures
 ' I did not know that he painted pictures well'
 b) Allí dibujaba cuidadosamente paisajes.
 there drew-Imp carefully landscapes
 'There she drew landscapes carefully.'

As we had assume before, we take *bien*, *mal* are merged to the left of the VP Cinque (2000) and Costa (1997):

(37) [verb.....[[*bien/mal*.....[VP..... DP object]]]]

Objects might precede these adverbials. We assume that this is due to movement of the object above the position of the adverb *bien*⁶:

- (38) Allí pinta cuadros bien.
 There paints pictures well

⁵ The pronominal elements that permit this behavior are not clitics since they can involve sometimes bimorphemic pronominals such as *usted* or *nosotros*.

⁶ The movement could be similar to scrambling and it might be permitted only when the manner adverb receives final focus stress. Zubizarreta (2008).

- (39) *Alli dibujaba paisajes cuidadosamente.*
 there drew-Imp landscapes carefully.
 'There, S/he drew landscapes carefully.'

Subjects precede the objects in this configuration, therefore subjects must be higher than the landing site of objects and to the left of manner adverbs:⁷

- (40) *Allí pintan tus hermanos cuadros bien⁸.*
 There paints your siblings pictures well
 'Your siblings paint pictures well'

- (41) *Allí dibujaba Marisa paisajes cuidadosamente.*
 there Drew-Imp Marisa landscapes carefully
 'Marisa drew landscapes carefully.'

There is a clear contrasts between the examples above and examples in which the subject and object follow the adverbials:

- (42) a. **?Allí Pintan bien tus hermanos cuadros.*
 There Paint well your siblings pictures

- (43) a.) **?Alli dibujaba cuidadosamente Marisa paisajes.*
 there drew-Imp carefully Marisa
 landscapes

The ungrammatical structure would presumably correspond to an analysis in which the subject is in Spec VP above the base position of the determinerless object:

- (44) **[verb.....[[Manner adverbs.....[VP Subject.....]]]
 Determinerless DP]]]*

Catalan, and Italian according to Rizzi (1996), contrasts with Spanish. Subjects cannot precede adverbials like *bien*, *mal*. This is due to the fact that subjects cannot access a higher projection to the left of adverbs in these languages:

- (45) **No pinta en Joan bé. (Catalan)*
 Not paints Joan well.
 'Joan does not paint well.'
 b. **Non dipinge Gianni bene (Italian)*
 Not paints Gianni well
 b. **No pinta en Joan quadres bé. (Catalan)*
 Not paints Joan pictures well
**Non dipinge Gianni quadri bene*
 Not paints Gianni pictures well

⁷ For an analysis in which objects in English move to the left of these adverbs see Johnson (1991).

⁸ For some speakers I consulted the sentence is only permitted with heavy focus on *bien*. See footnote 6 for the licensing of *bien* in final position.

The contrasts between Spanish on the one hand and Catalan and Italian on the other with respect to the relative distribution of these adverbs and the subject are also a very important argument against a right adjunction alternative for adverbs. If right adjunction of adverbs was made available by UG, one would have to assume the rather odd proposal that right adjunction above the subject is possible in Spanish, but impossible in Catalan and Italian. However, this would go against the standard assumption that there is free ordering with respect the adjunction operation.

Another similar argument can be made with respect to the behavior of deadjectival adverbials. These adverbials show a very restricted distribution (Bartra & Suñer 1997) as in (46)

- (46) La Mafia no juega limpio a las cartas.
 La Mafia not plays clean to cards
 'La Mafia does not play fair with cards.'

- (47) Silvina trabaja duro en esta cuestión.
 Silvina works hard on this question
 'Silvina works hard on this question.'

For instance, these adverbials cannot be separated by a complement, as has been shown by Bosque (1989) and Suñer (1994)⁹:

- (48) a.*?Pedro no juega a las cartas limpio. (from Suñer 1994)
 Pedro not play with cards clean
 'Pedro does not play fair with cards.'
- b.*?Silvina trabaja en esta cuestión duro.
 Silvina works on this question hard
 'Silvina works hard on this question.'

The fact that no complement is allowed before this deadjectival adverbs, indicates that they are higher than any possible landing site of complements moved to the left. Observe the contrast between these deadjectival adverbs in (48) and the previous manner adverbs in (49):

- (49) a) Pedro no juega a las cartas bien.
 Pedro not plays cards well
 b) Silvina trabaja en esta cuestión bien.
 'Silvina works on this question well.'

The scheme of the different position of adverbs is in (50):

- (50) [verb.....[[Deadjectival Adverbs [Complements [Manner adverbs]]]

⁹ Some speakers do not find the contrast reported by Bosque (1989) and Suñer (1994). For those speakers movement of the object above this deadjectival adverbs is possible.

Subjects can appear before these deadjectival adverbials as shown by Suñer (1994). Therefore, Spec SubjP must be higher than deadjectival adverbs¹⁰:

(51) No creo que aquí juegue la mafia limpio a las cartas.
Not think that here plays the Mafia clean to cards

(52) No creo que trabaje Silvina duro en esta cuestión.
Not think that worked Silvina hard on this question

While Spanish allows this high position above manner adverbs, determinerless DP with manner adverbials and deadjectival adverbs, the position is consistently unavailable in Catalan:

(53) *Aquí juega la mafia brut.
Here plays the mafia dirty
'The mafia plays dirty, here.'

From our perspective this is not surprising since this higher subject Spec SubjP position is not available for subjects in Catalan in general. Again, a right adjunction alternative would be at odds with the fact that these deadjectival adverbials could be to the right of subjects in Spanish but not in Catalan.

In conclusion, we have shown Catalan lacks a subject position, the one which appears before the complements and predicates, which we assume to be Spec SubjP. Thus, a uniform explanation of the facts involving manner adverbs, deadjectival adverbs, leftward movement of object quantifiers and insertion of pronouns between auxiliary and past participles can be given from this perspective if we assume the existence of this higher Spec SubjP in Spanish, but not in Catalan.

1.5. Spec SubjP and restructuring effects

Spec SubjP is also licensed in non finite contexts as in (54). Similar examples are shown in Torrego (1998). We find the following contrasts between Spanish and Catalan:

(54) a) Antes de comprar Luis manzanas
Before of buying Luis the apples
b)*Abans de comprar Lluís pomes
'before of buying Lluís apples
'Before Lluís bought apples'

(55) a) Sin haberle comprado Juan manzanas
Without having bought Juan apples
b)*Sense haver comprat en Joan pomes

¹⁰ For the dialects that permit movement of the object above the position of the deadjectival adverb, the relevant contrast is the following (again with heavy stress on the final deadjectival adverb):

(i) No creo que trabaje usted/Silvina en esta cuestión DURO
(ii) *No creo que trabaje en esta cuestión usted/Silvina DURO

Without having bought Joan apples
'Without having Joan bought apples.'

In exploring the possible distribution of subjects in SubjP we observe that they might appear between modal and infinitives and also between infinitive and complements of the infinitive (See Costa 2004 for similar facts in Portuguese).

(56) a. Hoy no quieren los estudiantes leer las novelas.
Today no want-INF the students to read the novels
b. Hoy no quieren leer los estudiantes las novelas.
Today no want read-INF the students the novels
'Today, the students don't want to read novels.'

(57) a. Hoy no debería María estar cansada.
Today not should María be-INF tired
b. Hoy no debería estar María cansada.
Today not should be María tired
'Today María should not be tired.'

As expected, the two internal positions of the subject are ungrammatical in Catalan. Only the one with the postverbal subject at the end is grammatical:

(58) Avui no deuen (*els estudiants) llegir (*els estudiants) les novel·les (els estudiants).
Not should (*the students) read-INF (*the students) the novels (the students)
'The students should not read novels.'

(59) Avui no pot (*en Joan) estar (*en Joan) cansat (en Joan).
Not can you Joan be-INF Joan tired
'Joan cannot be tired today.'

Since Spec SubjP is below the final landing site of the verb in TP, we can capture the order in which the subject appears between the finite modal verb and infinitive in Spanish in (60):

(60) [TP Verb [SubjP subject[Infinitive.....]]]

However, it is surprising that subjects can appear between the infinitive and the object of that infinitive, or predicate of that infinitive. The fact that Catalan does not allow this possibility suggests that the position must be Spec SubjP in Spanish.

The distribution of subjects in the order MODAL-INF-SUB-COMPL must correlate to the fact that modal verbs avail themselves of mono clausal structures (i.e., show transparency effects). For instance no subject of a main clause can be embedded beyond a finite subjunctive which clearly involves a biclausal structure:

(61) *No sabe que compré usted las manzanas.
Not know that bought-1p you the apples
'You did not know that I bought apples'

- (62) *No nos permitió que comprásemos usted las manzanas.
 'Not to us permitted that buy-1pp you the apples'
 'You did not allow us to buy apples'

As is well known, object control verbs are not considered to be monoclausal in Romance. In examples (63) subjects cannot appear after the infinitive controlled by the object.¹¹

- (63) a. Ayer le aconsejaron pedir (*ellos) los documentos.
 They advised to ask-INF (*they) for the documents
 'They advised us to order the documents.'

- b. Ayer le obligó a hacer (*tu padre) la cama.
 Yesterday obliged to make-INF (*your father) your bed.
 'Yesterday, your father obliged you to make your bed.'

Thus, we conclude that verbs that trigger restructuring allow main subjects to follow their infinitives and precede other complements and verbs. However, one might still wonder whether the relevant feature is subject control or object control. Specifically, subject control verbs would permit this embedded Spec SubjP subject position, while object control verbs would ban it. For instance, Torrego (1996) has shown that certain types of subjects in Spanish are allowed to appear embedded under a subject control verb, which poses questions about the nature of the relationship between PRO and the subject:

- (64) No sabemos si firmar nosotros la carta. (From Torrego 1996)
 Not know whether to sign we the letter
 'We don't know whether to sign the letter'

Torrego's examples resemble examples by Piera (1988) and Belletti (2005), the only difference being that the subject embedded in the control structure is doubled by a subject in the matrix clause in Piera's (1988) and Belletti's (2005) examples:

¹¹ For some speakers object control verbs like "permitir" and "ordenar" do allow restructuring effects as show by the fact that they permit clitic climbing Suñer (1980) and Luján (1978):

- (i) Me la permitió tocar.
 To me it allowed-3p to play
 'she allowed me to play it'

It is not surprising then that these speakers permit subjects embedded under these object control verbs:

- (ii) Me permitió tocar Juan *la Traviata*.
 to me permitted to play Juan "la Traviata"
 'Juan allowed me to play la traviata.'

According to Cinque(2004)and Kayne (1989), these unexpected restructuring effects might be explained if these verbs represent hidden instances of causative constructions.

(65) Julia quería telefonar ella. (From Piera 1988)
 Julia wanted to phone herself
 'Julia herself wanted to phone.'

(66) Gianni pensa di parlare lui di questo problema. (Belletti 2005)
 Gianni thinks to speak him about this problem
 'Gianni himself thinks to speak about this problem.'

In their analyses PRO is doubled by this type of subject embedded in the infinitive:

(67) ...[Si PRO_i firmar [nosotros_i]...] la carta.
 if PRO to sign us the letter

The types of subjects that can double PRO are characterized by Torrego as floating quantifiers since they show the same distribution. Some of those floating quantifiers include some examples of DP which disagree in person with the matrix subject:

(68) No sabemos si PRO_i ir [los linguistas] al cine.
 No know-1pp whether PRO to go the linguists to the movies
 'We, the linguists, don't know whether to go to the movies'

(69) No saben si PRO ir todos al cine.
 Not know whether PRO go all to the movies
 We don't know whether to go all to the movies

The problems with this alternative are various. In the first place, this doubling of PRO is strictly limited to pronominal elements or disagreeing subjects which resemble floating quantifiers. When non floating elements are involved the sentences are rendered ungrammatical:

(70) *?No sabe si contestar Juan las cartas. (from Torrego 1996)
 Not know whether to answer Juan the letters
 'Juan does not know whether to answer the letters.'

(71) *Pensa di [PRO parlare Gianni di questo problema]. (from Belletti 2005)
 'Think-3p of [PRO to speak Gianni about this problem]
 'Gianni thinks about talking about this problem.'

Finally, other constructions that do not involve PRO but involve restructuring permit the sequence V INF SUBJ COMPL. This is the case of causatives in (72) and perception verbs in (73). These two type of constructions involve restructuring according to Guasti (1997) and Hernanz (1999):

(72) Ayer nos hizo leer Juan el libro.
 Yesterday to us make to read Juan the book
 'Yesterday you made us read the book.'

(73) Ayer oyó cantar Pedro *La Traviata*.

Yesterday heard to sing Pedro *la Traviata*.

'Yesterday Pedro heard the singing of 'la traviata.'

Therefore, we conclude that NO doubling of PRO is involved in these cases of V INF SUB COMPL orders. Thus, we are left with the question of how subjects might end up after the infinitive and before complements.

1.5.1 Subjects and Functional Structure.

When infinitives are not embedded in any finite contexts, they must precede the subject in Spec SubjP.

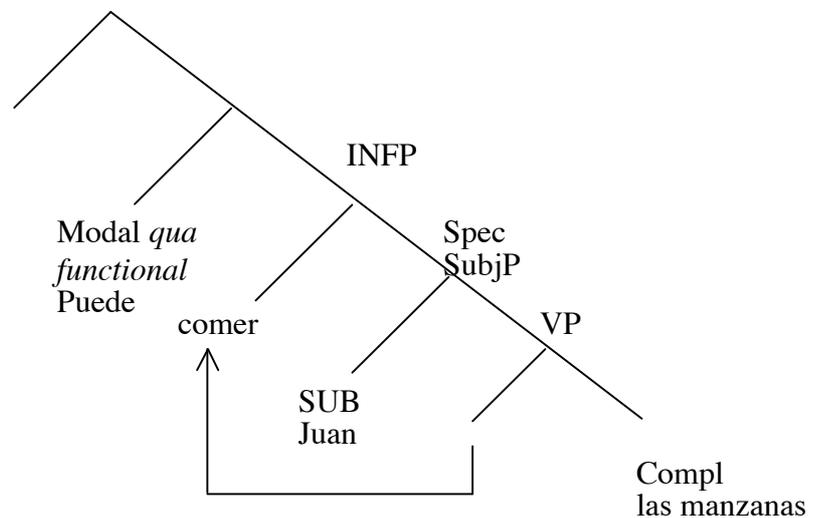
(74) a) Antes de comer **Juan** las espinacas, le gustaría probar the lasaña.
before eating Juan spinach, him would please to taste the lasaña

b)* Antes de **Juan** comer las espinacas, le gustaría probar la lasaña.
before of Juan eating the spinach, him would please to have a taste of the lasaña

'Before Juan eats the spinach, he would like to taste the Lasagna.'

Thus infinitives move overtly above Spec SubjP to a higher inflectional projection we can call INFP. Thus, examples like (74a) are represented in (75):

(75) >Modal> InfP>Subjects> Complements



This movement of the infinitives above Spec SubjP would be exactly parallel to examples of auxiliaries with past participles in (76). Recall that the differences between Icelandic versus Spanish are related to the fact that past participles move higher than Spec TP in Spanish, but not in Icelandic.

b) *Consideran a los niños los profesores [muy inteligentes].

Not consider P-the boys the teachers very intelligent

'The teachers consider the boys very intelligent.'

Thus we conclude that ECM subjects in causatives, perception verbs and small clauses cannot move or merge in a higher projection than the higher Spec SubjP of the main subject. This is again an additional argument to the ones I gave in sections 1.1 -1.4 that Spec SubjP is really high up in the clausal structure.

Since Catalan does not license subjects in Spec SubjP, there will be no structures in which the subject precedes any complement embedded under a causative verb as in (81), perception verb as in (82) or subject of a small clause (83):

(81) *Ahir li va fer tocar el professor el piano.'

Yesterday made to him to play the professor the piano.

'Yesterday the professor made him play the piano.'

(82) *Ahir va veure ballar en Joan un merengue.

Yesterday saw dance Joan a Merengue

'Yesterday, Joan saw the a merengue dancing.'

(83) * Consideren intel.ligents els professors els nois de l'escola.

Consider intelligent the professor the boys in the school

'The teachers consider the boys of the school intelligent.'

Finally, the lack of subjects in Spec SubjP in Catalan explains the ungrammaticality of (84a) which is permitted in Spanish in (84b):

(84) a.*Aquí no semblen [_{Spec SubjP} els estudiants [felços]].

(Catalan)

Here not seem [_{Spec TP} the students [happy]]

b) Aquí no parecen [_{Spec SubjP} los estudiantes [felices]]

(Spanish)

Here not seem [_{Spec TP} the students [happy]]

'Here the students do not seem happy'

3. Conclusion

This analysis implies that Spec SubjP in Spanish has an EPP feature that Catalan lacks. The licensing of this Spec SubjP for subjects in Spanish is parallel to the licensing of Spec TP in Icelandic. The variation found in Romance between Spanish (licensing of Spec SubjP) versus Catalan is parallel to same parametric difference between Icelandic and English TEC's. In Icelandic and in Spanish there are two EPP features that need to be satisfied in construction (51): The EPP feature of Spec SubjP and the EPP feature of the projection that licenses preverbal subjects in both languages. If one adopts Anagnostopoulou and Alexiadou's (1999) views on the EPP, one might assume that the EPP be satisfied by head movement for the higher TP. However, it is crucial that the EPP feature

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of the lower inflectional projection Spec SubjP be satisfied by overt movement of the subject to its Spec.¹³

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¹³ There does not seem to be any correlations between the licensing of Spec SubjP and the licensing and clitic doubling. Catalan has obligatory clitic doubling with overt pronouns and does not license Spec SubjP. Portuguese, very similar to Spanish, seems to allow Spec TP, but does not permit clitic doubling.

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