Verbal Complex Formation and Overt Subjects in Infinitivals in Spanish

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1. Introduction.

The study of the distribution of postverbal subjects has been the topic of much discussion in the recent years in the literature on Romance. Of particular interest is the syntactic variation that one can find in the Romance languages and how those different distributions can illuminate the discussion of theoretical issues related to control, case, and focus. I will concern myself with recent proposals on how to analyze overt subjects in infinitival structures involving control. One possible analysis of the overt realization of subjects in these control constructions has been the backward control analysis proposed by Polinsky and Potsdam (2002). These are instances in which the controlled subject in the infinitival verb is overtly pronounced as opposed to the controller, which usually is an argument of the main clause.

This paper brings to light a new analysis to the facts and propose an alternative to backward control for Spanish. I will propose that overt subjects in these infinitival clauses of the control type are not overt realizations of the subject of the infinitival; instead they involve the main clause subject. This subject ends up in this position because massive remnant movement of verbal projections to the left has taken place. These remnant movements mask the fact that the subject is the lead to the order in which the main subject appears between infinitive and complements of the infinitive. This alternative has important advantages of drawing parallelism between these Spanish constructions and the formation of verbal complexes in the Germanic Languages (Hinterhölzl 2008), Hungarian and Dutch (Koopman & Szabolcsi 2000) and causatives in French (Homer, Ishizuka & Sportiche 2009). One important advantages of this proposal is that it accounts for the following generalization: those languages that allow VSO order are also the ones that permit a wider distribution of subjects in apparent backward control contexts. We conclude that this wider distribution is a consequence of the fact that Spanish has a higher Spec position for the landing site of its subjects. See Ordonez (2007) and Ortega-Santos (forthcoming).

In order to better understand what the exact position subjects occupy in infinitival clauses in Spanish, I will make a comparison with Catalan. Catalan allows postverbal subjects with infinitives, however its distribution is different in many crucial respects. We will start with contexts in which nominative case is available with infinitives. This is for instance the case of subjects in adverbial clauses with before. When the verb is transitive and the object is overt, the subject can either appear before or after the direct object. The preverbal position is generally ungrammatical in most dialects².

(1)  
\begin{align*}
&\text{a) Antes de (Luis) comprar (Luis) manzanas (Luis)}^3 \ V (S) \ XP (S) \ \text{Spanish} \\
&\text{Before of (*Luis) buying-INF (Luis) the apples (Luis)}
\end{align*}

This pattern in Spanish contrasts with Catalan, which does not allow the possibility of having the subject between the object and the complement. Subjects usually follow complements:

(2)  
\begin{align*}
&\text{b) Abans de comprar(* en Lluis) pomes ( en Lluis) V (S) \ XP S Catalan} \\
&\text{Before of buying-INF (*Lluis) apples (en Lluis)}
\end{align*}

The same pattern exists with infinitival clauses involving control. These examples are particularly interesting because there is no obvious source for case of the subject in the infinitival clause. According to standard assumptions these control structures involve a PRO with null case or an empty category product of movement as in Hornstein (1999). The following minimal examples show that a subject might appear in different positions either before the infinitive, or after the infinitive before the complement or after the complement V(S) INF (S) XP (S). Again Catalan clearly contrasts with Spanish in the possibilities allowed. See also Ordoñez (2007).⁴

² Caribbean Spanish dialects do allow this pre-infinitival position subject more easily. This is more common with pronouns. I leave aside this important question.
³ There might be a slight preference for having the subject after the complement for some speakers. However, the two possibilities are possible.
⁴ Again speakers might vary in preference of where to put the subject and the judgments might require special intonation depending on where the subject is focus or not. I leave for
These differences in the distribution of subjects in infinitival constructions are clearly related to the fact that subjects in Spanish have a wider distribution in general with respect to other complements in finite as well as infinitival clauses. It is well known that V(S) XP (S) orders are more readily available in Spanish than in Catalan, which only allows V XP S (Gallego 2013, Solà 1992, Roselló 2002, Valludví 2002) as shown below:

(5) a) Hoy comprará (Juan) comida (Juan). (Spanish)
   today will buy (Juan) a meal (Juan)
b) Avui comprarà (*en Joan) menjar ( en Joan) (Catalan)
   Today will buy (*en Joan) lunch ( en Joan)

(6) a) En Irak hubieron (muchos soldados) herido (muchos soldados)
   por culpa de la guerra
b) En Irak van haber (*molts soldats) ferits ( molts soldats)
   In Iraq there were (*many soldiers) injured (many soldiers)

The different distributions of post verbal subjects in infinitival verbs with nominative case, control infinitival and finite subjects are equivalent. This suggests that a common analysis is needed. This is possible if we propose a common source for all postverbal subjects. We will propose exactly an analysis that makes that connection possible in this paper.

3 The V S INF XP and V INF S XP and control.

3.1 The V S INF XP order.

We can start with the subject control examples as in (3). As we saw the V (S) INF XP and V (S) INF orders are both possible. The V (S) INF XP order poses no problems for most theories if the subject in this example is the main subject and also if Spanish (S) stays in a future research the study the interaction of intonation and distribution of postverbal subjects in Spanish.

(7) \[V_i \ [v_p \ \text{SUB} \ [\text{INF} \ \text{XP}]] \] In Situ

However, the order V INF (S) XP raises various questions. Since these are control examples, the subject either could be the controller subject of the finite verb or the controllee subject of the infinitival structure. If it is the controller the question is how the main subject can end up in this postverbal position; if it is the controllee the question is how it can be phonetically realized.

Under the standard GB proposal this second alternative was not possible because the controllee subject is a phonetically empty PRO. That PRO obtains its reference by being conindexed by the subject argument in a local domain:

(8) Juan, quiso [PRO, comprar el libro]  
Juan wanted PRO to buy-INF the book

However, in recent years Hornstein (1999) has proposed that control structures do not involve PRO. Instead control is reduced to an instance of movement from the theta subject position of infinitival verb to the subject theta position the main clause. After movement of the subject from its infinitival clause to the main subject position the lower copy is deleted:

(9) Juan, quiso [Juan, comprar el libro]  
Juan wanted Juan to buy-INF the book

Polinsky and Potsdam (2007) follow Hornstein’s (1999) approach and claim that a more thorough picture emerges when the different alternatives of deletion are considered. The distribution of the subject depends on the locus of pronunciation after movement: If the higher copy is pronounced forward control is obtained, the standard examples of control in GB); if the lower copy is pronounced , backward control is obtained; and finally examples in which both copies are pronounced, are cases of resumption:

(10) Typology of control and raising according to Polinsky and Potsdam (2007)

<table>
<thead>
<tr>
<th>Higher copy pronounced</th>
<th>Lower Copy pronounced</th>
<th>Structure</th>
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<tbody>
<tr>
<td>√</td>
<td>*</td>
<td>Forward Control</td>
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<tr>
<td>*</td>
<td>√</td>
<td>Backward Control</td>
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<tr>
<td>√</td>
<td>√</td>
<td>Resumption</td>
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Given this typology, a new analysis for the V IN (S) XP order emerges. This could be taken to be an instance of backward control in which the lower copy is pronounced. As we saw with the adjunct infinitivals with overt subjects; infinitival verbs must necessarily move above the position of the overt subject. This movement corresponds to the two scenarios proposed: forward control and backward control.

(11) Juan, quiso [ comprar] Juan t, el libro] Forward Control = S INF XP
Juan wanted [to buy-INF] Juan, t, the book]

(12) Juan, quiso [ comprar] Juan t, el libro] Backward Control = V INF S XP
Juan, wanted [to buy-INF] Juan, t, the book]

Thus, there are two subject positions: one in the higher clause and one in the lower one and there is a movement chain that unites these two positions. Thus the analysis captures in an elegant way the second possibility attested in Spanish. Of course, many questions arise as to what the conditions necessary for a language like Spanish to manifest these examples of backward control are, and not Catalan as we saw in the introduction. We pose some more questions in the next section:

3.2 Some objections to Backward Control analysis for the V INF S XP orders:

We will start with adoption of backward control analysis in languages like Greek by Alexiadou and Anagnostopoulou (2010) and compare the analysis in Greek with a possible counterpart as above for Spanish. Greek, contrary to Spanish, does not show infinitives for control structures in general. However, it has been convincingly argued that the subjunctive mood involves obligatory control. Alexiadou and Anagnostopoulou claim that instances in which the subject is overt in the embedded subjunctive clause is an instance of backward control, in which the subject’s lower copy is pronounced.

(13) (O Janis) emathe (o Janis) na pezi (o Janis) kithara (O Janis)
Janis learned to play the guitar

The argument that this is an instance backward control is given by the fact that the embedded subject is itself licensed in that position and that it differs from the properties of the main subject. In order to do that they go through a series of tests. The first is licensing of
NPIs. Greek is a Negative concord language like Spanish. Postverbal negation requires a negation in preverbal position in order to license it. When the negative quantifier appears in the main clause with the embedded negation in the subjunctive the sentence is ungrammatical since it gives a reading of double negation as in (14a). However when the negative word *kanis* appears embedded in the subjunctive the embedded negation is able to license it in (14b):

(14)  
\[ \text{a. } {^*}\text{Kanis tolmise na min fai to tiri} \]  
\[ \text{Nobody dared-3sg subj not eat the cheese} \]  
\[ \text{b. } \%\text{tolmise na min fai Kanis to tiri (Greek)} \]  
\[ \text{dared/3sg subj not eat nobody the cheese} \]

We can try the same tests for Spanish. The crucial test is whether an embedded negation will license the subject nNegative qQuantifier *nadie*. Starting with a clause like (15), the embedded subject *Juan* might be embedded under the scope of the negation. The sentence implies that Juan picked his nose despite the prohibition made by someone to not do so:

(15)  
\[ \text{a. } \text{Juan olvidó no tocarse la nariz} \]  
\[ \text{Juan forgot not to pick his nose} \]  
\[ \text{b. } \text{Ayer olvidó no tocarse } \text{Juan la nariz} \]  
\[ \text{Yesterday forgot not to pick Juan his nose} \]

When a negative quantifier *nadie* is inserted the paradigm gets more complicated. With *nadie* preverbally, a double negation arises. Namely (16a) implies that everybody remembered to not pick their nose. That reading is maintained in (16b) with *nadie* in the embedded clause and with the negation in the main clause. The first negation is required because of negative concord. This shows that that *nadie* is licensed by the higher negation and not the lower one. However, when the main negation is deleted, the lower negation is incapable of licensing *nadie* on its own as shown in (17c). This indicates that the subject *nadie* belongs to the main clause and not the embedded infinitive clause.

\[ ^5\text{Recall that these sentences must always be read with an appropriate intonation and in a particular discourse environment without which they sound a bit unnatural for most speakers. This comment applies to the rest of the examples with postverbal subjects. It is possible that for some speakers the most natural examples are the ones involving infinitivals assigning nominative case.} \]
The examples above contrast with similar examples with raising verbs. For raising verbs like *parecer* the embedded subject *nadie* can appear with the infinitival with the embedded negation licensing it. The same occurs with verbs like *begin* which are ambiguous between raising and control in Greek and Spanish. This asymmetry is not surprising if *nadie* starts out in the infinitive clauses according to the raising analysis:

(17) **Ya que parece no tocarse nadie la nariz**
    Since it seems not to touch nobody his/her nose

(18) **Ya que empezó a no distinguir nadie los colores.**
    since it started to not to distinguish nobody the colors

The second puzzle for a backward control analysis is the fact that backward control (BC) is sensitive to locality in a way that forward control (FC) is not. This is unexpected if both involve the same movement, but they are distinguished with respect to where the copy is pronounced. This if clearly shown in examples involving infinitival wh-islands as discussed by Torrego (1996). While the upper copy is available, the lower one is ungrammatical.

Wh-islands:

(19) **Juan no sabe si contestar Juan las cartas. (BC) (adopted from Torrego 1996)**
    Juan not know whether to answer Juan the letters

(20) **Juan no sabe si contestar Juan las cartas (FC)**

An interesting puzzle related to these contrast is the fact that pronominals do not show the same effects as pointed out again by Torrego (1996), see also Belletti (2007) for similar effects in Italian:

(21) **Los estudiantes, no saben si contestar ellos, la carta. (From Torrego 1996)**
    The students not know whether to answer they the letter

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6 See also Piera (1987). He points out that this phenomenon must be related to the fact that overt pronouns can be doubling a preverbal subject.

(i) tus hermanos me acusaron ellos despiadadamente.
    your siblings accused me they without pity.
Another reason against a simple spell out solution for the embedded subject in these infinitival examples is the different intervention effects of different arguments between main verb and embedded infinitive. Thus, under a movement approach to control a verb like *prometer* can have the upper copy pronounced as (22a) yielding the expected FC result, or the lower copy is pronounced yielding the BC result in (22b).

(22)  

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<td>a. El jurado prometió [darles el jurado la libertad a los prisioneros] (FC)</td>
<td>The jury promised to give-cl the jury the liberty to the prisoners</td>
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<td>b. El jurado prometió [darles el jurado la libertad a los prisioneros] (BC)</td>
<td>The jury promised to give-cl the jury the liberty to the prisoners</td>
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(22)  

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<td>The jury promised to give-cl the jury the liberty to the prisoners</td>
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However, when the object of *promise* appears between the main verb and the embedded infinitive the lower copy cannot be spellout. This is can be seen in the following contrasts:

(23)  

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<tbody>
<tr>
<td>a. El jurado les prometió a los familiares [darles el jurado la libertad a los prisioneros] (FC)</td>
<td>The jury promised to the family to give-cl the jury the liberty to the prisoners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. *El jurado les prometió a los familiares [darles el jurado la libertad a los prisioneros] (BC)</td>
<td>The jury promised to the family to give-cl the jury the liberty to the prisoners</td>
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The point in question is that if control involves movement, and there is a free choice of which copy can be pronounced, then both backward and forward control should be equally available. However, this is not what we see.

The next point is not an immediate criticism of the backward analysis but it raises issues related to how to best characterize such analysis. We should not only consider forward and backward control but also middle control. Take for instance example (24). Example (24a) would be backward control; (24b) would be forward control; and (24c) could be considered then middle control:
In any case should Juan be able Juan to return Juan the money.

If no movement chains are involved in this construction, then we need to derive the postverbal subject position in a different fashion. Another generality not captured is that object control verbs show the same pattern with main subjects. Here the controller element in the infinitive is the object clitic me, and the subject is able to appear after the infinitive. No chain is involved but the subject appears in the post-infinitival position:

(27) Ayer me recomendó leer Juan este libro
    Yesterday recommended me to read Juan this book
    Juan recommended me to read this book

(28) Ayer nos prohibió leer Juan este libro
    Yesterday prohibited to us to read Juan this book
    Juan prohibited to us to read this book

The same locality issues mentioned with promise type verbs are found in causatives and object control verbs. No IO argument might intervene between the verb and infinitive when
the subject follows the infinitive. On the contrary, if the IO argument appears at the end the sentence is rendered grammatical:

(29) a. *?Ayer nos prohibió a nosotros leer Juan este libro
    Yesterday prohibited to us to read Juan this book
   b. Ayer nos prohibió leer Juan este libro a nosotros
       Yesterday prohibited to read Juan this book to us

(30) a. *?Ayer nos hizo a nosotros leer Juan este libro.
    Yesterday made to us to read Juan this book.
   b. Ayer nos hizo leer Juan este libro a nosotros
      Yesterday made to read Juan this book to us

Finally, not only main subjects are permitted after the infinitive as assumed by backward control, but also the object of a main verb might be inserted in this post infinitival position in object control verbs. This is shown in the order V DO INF XP and V INF DO XP in (31).

This example shows that main subject and main object controllers can be equally embedded and appear after the infinitival verb:

(31) a. Obligaron a Bush a firmar los acuerdos de paz
       Obliged-3pp to Bush to sign the peace agreements
   b. Obligaron a firmar a Bush los acuerdos de paz
       Obliged-3pp to sign to Bush the peace agreements
   c. ?Obligó a firmar el Congreso a Bush los acuerdos de
      paz
       Obliged to sign the Congress to Bush the peace agreement

To summarize the arguments so far. A backwards control analysis for infinitival verbs in Spanish faces two problems; there is not enough evidence to show that the lower copy of the control structure is based generated there; and it is not sufficiently general to cover all the similarities we found between these infinitival subjects in these control structures and other non control structures like causatives and perception verbs. In those last structures there is no chain involved. If we eliminate the possibility of assuming that subjects in (3) are instances of backward control, we are led to propose that the post infinitival subject found in these structures is the main subject verb. The question is how we derive the following general schema without Backward Control:

(32) \[ V_1 \ [V-INF_2 \ SUBJ_1 \ OBJ_2] \]
We can entertain various proposals. The first one is to assume a Head Movement analysis. Guasti (1993) proposes that there is head movement of the infinitive to adjoin to the main verb as proposed for causative constructions in Romance. However, this implies a right adjunction of the infinitive to the main verb, not a welcome result in recent theoretical advances.

(33) \[ V\text{-VINf}_2 \text{ SUBJ } [i \text{ t OBJ}_2] \]

Cinque’s restructuring (1999) proposal provides an alternative possibility. According to Cinque restructuring involves monoclusal structures and each modal verb that takes infinitives projects into the functional field. Under this approach infinitival verbs must move past the position of the postverbal subject like past participles move past the position of the subject in situ in auxiliary constructions to an agreement head (Belletti 1990). The comparison between auxiliary and modals is shown below:

(34) Auxiliary \(> Vpp_i \rightarrow > [vp\text{SUB } t_i \text{ OBJECT}] \) 
habia (functional projection) comido (vpp) Juan las manzanas.
has eaten Juan apples

(35) MODAL (functional projections) \(> \text{INF}_i \rightarrow > [vp\text{SUB } t_i \text{ OBJECT}] \)
wanted to eat Juan the apples

To understand the optionality of movement of the infinitive one can adopt a modification of Cinque’s proposal by Cardinaletti and Shlonsky (2004) and assume that modal optionally projects into the functional field. The possibility of having a post infinitival subject would have to be tied to whether modals project functional verb as opposed to lexical VP’s. When modals are like auxiliaries then subjects can appear after the infinitive. When modals are like lexical verbs then the subject must appear before the infinitive:

(36) \[ [vp \text{ Modal lexical > SUBJ INF}_i \rightarrow > [vp \text{ t}_1 \text{ OBJECT}]] \]

Both hypotheses need to answer why he process of restructuring goes beyond the typical modal, causative and perception verbs. As we saw in examples (22), (25) and (26) postverbal subjects might appear after certain object control verb, which are not modal and are not taken to project into any functional field in Cinque’s typology.
Moreover some examples of \( V_1 \) [V-INF \( _2 \) SUBJ \( _1 \) OBJ \( _2 \)] involve more than pure verbal infinitival heads; some infinitivals come with a preposition or complementizer. When complementizers and prepositions come into play, a functional analysis is not enough:

(37)  
\begin{align*}
\text{a.} & \text{ Ayer olvidó de tomar Juan el desayuno} \\
& \text{Yesterday forgot of having Juan breakfast} \\
\text{b.} & \text{Ayer tuvo que tomar Juan el desayuno} \\
& \text{Yesterday had to having Juan breakfast}
\end{align*}

In conclusion, we need other alternatives to the backward control, the head movement, or functional analysis. I will propose an alternative in which subjects end up in postverbal position in these examples when finite verb and infinitive form a verbal complex. In forming the verbal complex subjects can appear in a post infinitival position. This is captured in the following generalization:

(38) \textbf{Generalization: All the Infinitival elements to the left of the SUBJECT in the form} \( V_1 \) INF \( _2 \) SUBJ \( _1 \) OBJ \( _2 \) \textbf{must form verbal complexes in order to be licensed.}

Here we will implement the term verbal complexes by taking a Phrasal Movement Approach to verbal complexes. In this sense we want to follow the path started with Dutch and Hungarian by Koopman and Szabolcsi (2000), Dutch and German by Hinterholz (2005), and for causatives for French by Homer, Ishizuka and Sportiche (2009).

4. Towards an Phrasal Movement Analysis of postverbal subjects with infinitives in Spanish

The advantage of phrasal movement analysis as opposed to a head movement or functional analysis of verbal complexes, is that in a phrasal movement analysis, verbal XP projections might contain or not other particles, prepositions, and certain predicates. This has already been argued by Hinterhölz (2008) and Koopman and Szabolsci (2000) for the examples of verb raising in Dutch, in which the insertion of particles is perfectly plausible as in the following case:

Dutch Verb Raising:

(39) \text{Toen Jasmijn de lamp wou \textit{beginnen} \textit{op te poetsen}}
\text{When Jasmijn the lamp wanted begin up to polish}
However, as pointed out by Hinterhölz (2008), the intervention of a temporary adverb like yesterday interferes with the verbal complex and the judgment degrades:

(40)  
a. Dat jan de schuur rood wil schilderen
    That Jan the door red wants to paint
b. ??Dat jan de schuur rood gisteren wil schilderen
    That jan the door red yesterday wants to paint

Spanish also seems to show certain parallelism to this case. It is possible for the verb and a predicate adjective red form a verbal complex in Spanish with the subject following the complex as in (43). However, the insertion of the adverb between paint and red makes the sentence degraded somehow:

(41)  
a. Por querer pintar rojo Juan el corral
    for to want to paint red Juan the barn
b. ??Por querer pintar ayer rojo Juan el corral
    for to want to paint yesterday red Juan the barn

(42)  
a. Por querer comer cruda Juan la carne…
    for to want to eat raw Juan the meat
b. ??Por querer comer ayer cruda Juan la carne…
    for to want to eat yesterday raw Juan the meat

Another important advantage is that verb raising in Dutch might be formed with a large variety of infinitivals, beyond the typical modal examples. They might involve what is considered object control cases. This is what we observed for Spanish examples (27) and (28). For all the reasons above it seems that the parallelism between these Dutch verb raising analysis and Spanish require similar analysis.

In the analysis of VR by Hinterhölz (2008) adjacent verbs are really the output of successive phrasal verbal movements. The end result of verb raising in Dutch is the following sentence with the final verbal complex in bold:

(43)  
a. dat Jan boek vaak lang wil lezen
    that Jan the book often long wants to read

The derivation starts in (45a) with movement of the object in step 1, movement of the past past participle phrase to Spec CP in b). Then the TP moves after the object and the past participle had moved in c) to the Spec Pred P and in step 4 the subject and the object scramble out.
A proposal along the same lines has been given to derive causative construction in French by Homer et al. (2009). The final output of causative verb complexes in French is in step (46e) in the following derivation:

\[(45)\]
\[a. [\text{VP faire} \ [\text{TP} [\text{VP} \text{Max lire le livre}]]) \]
\[\text{To make Max to read the book}\]

Step 1: Movement of the TP above faire:
\[b. [\text{TP} [\text{VP} \text{Max lire le livre}],] \ [\text{VP faire t}]\]
\[\text{Max to read the book to make}\]

Step 2: Movement of the subject and object out of the TP:
\[c. [\text{Le livre}, a \text{Max}_2 [\text{TP} \text{t} \ [\text{VP lire t}]],[\text{VP faire }]]\]
\[\text{the book to Max read to make}\]

Step 3: Movement of the VP to read above the licensing position of subject and object:
\[d. [\text{VP lire t}]], [\text{le livre}, a \text{Max}_2 [\text{TP} \text{t} \ [\text{VP faire }]]]\]
\[\text{to read the book to Max to make}\]

Step 4: Movement of the VP faire above CP which is a phase head and Spell Out is triggered:
\[e. [\text{VP faire }]][\text{VP lire t}],[\text{Le livre}, a \text{Max}_2 [\text{TP} \text{t}]]\]
\[\text{to make to read the book to Max}\]

Both the derivation of verb raising in Dutch and the derivation of causative constructions in French involve remnant XP movement of projection containing the verbal element. The XP arguments—subjects and objects—must vacate the projection that contains the verbal elements that form the output of the verbal complex. Applying the same logic to all the verbal complexes in Spanish, the following derivation with some variations will be proposed. Starting with (46a) the modal verb moves TP first where it will get its finite traits. Then the infinitival verb with its object moves above as in step 2. In step 3 the object and the main
subject both move out. In the next step there are various options. One of them is to assume that the subject moves to a higher projection followed by movement of the object as in step 3. In step 4 the infinitival verb containing the infinitival moves above the licensing position of the subject. Finally in step 5 the verb querer moves to its final position and leads to the desired order

\[ (46) \]
\[ a. [\text{VP} \text{Juan} [\text{querer} [\text{PRO} [\text{VP comprar el libro}]]] \]
\[ \text{Juan to want PRO to buy the book} \]

Step 1: Movement of the verb to want above VP:
\[ b. [\text{TP querer} [\text{Juan V} [\text{TP PRO [VP comprar el libro]]}]] \]
\[ \text{to want Juan to buy the book} \]

Step 2: Movement of the TP above wanted:
\[ c. [\text{TP PRO [VP comprar el libro]}] [\text{TP querer i [VP Juan V]}] \]
\[ \text{to buy the book wanted Juan} \]

Step 3: Scrambling of the object out of TP + movement of the main subject Juan to its licensing position above the scrambled object:
\[ d. [\text{Juan el libro} [\text{TP PRO [VP comprar t_2]}]] [\text{TP querer i [VP t_1]}] \]
\[ \text{Juan the book to buy wanted Juan} \]

Step 4: Movement of the VP containing to buy above the licensing position of subject and object:
\[ e. [[\text{VP comprar} t]] \text{Juan el libro [TP PRO]} [\text{TP querer i [VP t]}] \]
\[ \text{to buy Juan the book wanted} \]

Step 5: Movement of TP querer to Spec CP and final Spell Out:
\[ f. [\text{CP [TP querer i [VP comprar t_1]]}] \text{Juan el libro [CP PRO t]} \]
\[ \text{wanted to buy Juan the book} \]

Crucial Properties of the XP analysis followed with remnant movement are the following. First, importantly the XP’s that follows the subject in the V INF S XP have been scrambled out of its TP and do not form a constituent with the infinitive. This is step 3 for Homer et al (2009) and for this analysis. This movement of the object in these languages has been masked by subsequent remnant movements of the TP. Also this step crucially implies that subjects have a licensing position above the position of the scrambled XP object in Spanish. Postverbal subjects are moved. They are not in situ. Finally, this analysis assumes that infinitives and predicates in these verbal complexes are in a VP projection voided of any arguments: VP for Homer et al (2009) and Asp P for Hinterhölz (2008) Koopman and Szabolsci (2000).

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7 One can envisioned an alternative derivation in which subject and object vacate the structure in the order subject-object in step 1, in the same line of Homer et al derivation of causative constructions in French. I will leave this as a possible alternative.
Some of the good consequences of this analysis is that movement of the XP that follows the subject in the V INF S XP scrambles out of the TP can only occurs when TP is tense defective i.e., infinitive. Scrambling is a local Movement and cannot cross over finite clauses, this is a welcome consequence of this analysis of short distance scrambling. Neither Spanish, French or Dutch have long distance scrambling; therefore, we predict NO verbal complexes with a string of more than one verb that shows tensed specifications as for instance in a case of subjunctives:

(47) a. *?Ayer les hizo_i [que comprasen] Juan, el libro
    Yesterday to them made that buy-3pp Juan the book
b. Ayer les hizo_comprar Juan, el libro
    yesterday to them made to buy-INF Juan the book

More evidence of the movement of the scrambling of the XP in V INF S XP is that CPs filled with wh-words block such movements as we saw previously. Thus, this scrambling out of non tensed CPs is blocked by filled CPs, which suggest that Spec CP might be the escape hatch for these movements which is blocking these movements in the following sentences.

Thus we account for the former examples (21a) repeated below:

(48) *?No sabe si contestar Juan las cartas. (from 1996)
    Not know whether to answer Juan the letters
(49) *?No sabe a quién regalar tu hermana este libro
    Not know to who to give your sister this book

This scrambling movement might also explain why there is degradation when the subject is followed with a determinerless DP; they are harder to scrambled than definite DP’s. The same occurs with bare predicates:

(50) a. Nos proponemos leer Juan las novelas.
    to us proposed to read Juan the novels
b. ??Nos proponemos leer Juan novelas.
    to us proposed to read Juan novels
(51) a. No quise Juan comerla cruda
    did not want Juan to eat-it raw
b. *?No quiso comerla Juan cruda
    did not want to eat it Juan raw
The XP that follow the subject might be a whole CP or a TP with a string of infinitives. Under this analysis, the kind of XP that might appear after the subject must be similar to what in Germanic constitutes the extraposed elements after verb final.

(52) Dijo Juan [CP que iba a llegar tarde]
said Juan that will arrive late

(53) Debería Juan [poder salir de su casa]
should Juan to be able to leave his house

For some speakers intermediate cases might be degraded. This means that a TP with a string of infinitives pied pipes all the other infinitives for extraposition. A subpart of string of infinitives might lead to degradation for these speakers:

(54) ?Debería poder Juan [salir de su casa]
should be able Juan to leave his home

Since the Inf that follows the subject in V S INF do not form a unit with V, then we expect that clitic climbing is degraded, which is the correct prediction:

(55) a. ¿*Me lo debería Juan poder decir (Clitic Climbing)
to me it should Juan be able to say
b. Debería Juan poder decírmelo (No clitic climbing)
should Juan be able to tell me/tome

(56) a. *?Te lo quiere Juan comprar (Clitic Climbing)
to you it-wants Juan to buy
b. Quiere Juan comprártelo (No clitic climbing)
wants Juan to buy-it-to you

One crucial aspect of this analysis is that subjects have a licensing position above the position of the scrambled object in Spanish. Recall that in step 2 of the derivation the subject moved higher than the scrambled object. An important claim in this approach is that postverbal subjects are moved and they are never in situ and this position is very high. This evidence was provided in Ordoñez (2007) and I repeat some of the arguments in the following sections. This will be crucial to understand the parametric difference that distinguish Catalan from Spanish and the locality question we discussed above:

5. On the high position of subject in VSO structures and V INF O

5.1. Leftward movement of quantifiers and the position of the subject.
The first argument that postverbal subjects are high up comes from the behavior of non-focalized quantifiers like todo. As argued for French, quantifiers move leftward to the past participle position overtly as in (57). Spanish apparently does not show such overt movement of the quantifier over the past participle as in (58):

(57) Jean a [tout] mangé [*tout]. (Kayne 1975, p. 000)
   Jean has all eaten [*all]
   'Jean has eaten everything.'

(58) Juan se lo había (*todo) comido todo.
   Juan CL CL had all eaten all

One possible conclusion is that non-focalized quantifier tout moves overtly in French but not in Spanish. Rizzi (1996) and Nicolis (2001) analyzed the syntactic distribution of the equivalent quantifier in Italian tutto in Italian, which behaves like Spanish in (58), with the only difference that there is no clitic involved. They show convincingly that tutto does move obligatorily. They claim that the quantifier todo moves in both languages obligatorily, but past participles in Italian and Spanish move further to the left than French. In reality, the movement of the quantifier todo gets masked by further movement of the past participle in Spanish as shown below in the English glosses.

(59) [verb have [ all] [ vpp eaten t] (French)

(60) [verb have eaten, [ all] [ vpp t, t] (Spanish)

(61) Juan se lo había comido todo.
   Juan to him it had eaten everything

Further tests that show that quantifier todo is moved to the left us the position of these quantifiers with respect to manner adverbs that mark the left edge of the VP such as bien, mal, claro. Recall that in these judgments todo is not focalized. As expected todo must necessarily appear to the left of the adverbs that mark the left edge of the VP as shown below:

(62) Leftward movement of todo in Spanish:
   [verb ……Todo…… [[bien/mal,[VP……]]]]

(63) a. Por no hacerlo todo bien ÉL...
   For not doing all well HE
For not doing
b. *?Por no hacerlo bien todo ÉL.....
For not doing well all HE

The alternative order is also possible, but it requires focus on todo:

(64) a. Pedro lo hace bien TODO.
Pedro it makes well EVERYTHING
Pedro makes everything well.

A final interesting point in this respect is that object quantifier todo must follow the floating subject quantifier todos. This provides clear empirical evidence that subject are higher than Spec VP position.

(65) 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
b._?Mis compañeros lo hacen ambos bien todo
‘My classmates both do everything well.’

Similarly, behavior is obtained with non quantifier subjects in this postverbal position:

(66) a) 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’

Catalan, contrary to Spanish does not allow this high subject position. Therefore there is a link between this high subject position in Spanish and the wider distribution of subjects in Spanish versus Catalan as we saw in section 2 :

(67) *Ahir ho va fer en Joan/ell tot bé.
Yesterday it did Juan/él all well

5.2 The special behavior of pronominal elements and the AUXILIARY have plus Past Participle.

Another argument in favor of subjects in a high position above VPs comes from their distribution with auxiliary have. As it is well know, Spanish generally disallows subjects to appear between the auxiliary verb and the past participle:

(68) *Ayer no nos había tu hermana dicho la verdad.
Yesterday not to us had your sister said the truth.

In that respect, Spanish clearly differs from Icelandic (TEC), which allows the subject to precisely appear in this intermediate position:
(69) Pað hafa jólasveinar borðað búðing.
There have many trolls eaten pudding

According to the analysis by Jonas and Bobaljick (1996) subjects in Icelandic are moved out of the VP to a higher projection. Spanish masks that movement by the movement of the past participle and the output obtained is in (70b). However, as we argued with the cases of quantifier todo in object position, we can assume that the difference in behavior in the distribution of subject in both languages is just a question of whether the past participle is capable of moving. In Icelandic it does not move and yields the output in (70a). However, Spanish shows that it can move and that leads to the order in (70b):

(70) a. [Have [SubjP subject [VP Past participle t]]] (Icelandic)

b. [Have [Past participle [SubjP subject [VP t t]]]] (Spanish)

Crucially, pronominal subjects like usted (polite 2ps) and other pronominal elements might be able to behave like Icelandic and allow the pre-past participle position:

(71) Había usted dicho que lo lograría. (From Sánchez López 1993:281)
Have you said that I would do it

(72) Ya les había yo dicho a éstos que….
already had I said to these people that

This recalls the well-known examples of object shift. Pronouns can move further to the left than DP’s. The kind of pronoun that allows this position are weak pronouns as shown by the fact that it cannot be modified or coordinated in this position:

(73) a. [Have Usted [Past participle [SubjP t [VP t]]]]

b. [Have Usted [Past participle [SubjP Juan [VP ]]]]

(74) [Auxiliary Have{Subject pronominal [Past participle [VP ]]}

(75) *a. Ayer no habían usted y él dicho que lo lograría.
Yesterday not had you and he said that he would make it

b. *Ayer no había sólo usted dicho que lo lograría.
Yesterday not had only you said that he would make it.

Catalan, as expected, does not allow any of the possibilities above; no pronominal subject can be allowed between auxiliary have and the past participle:
(76) *Ahir no ha vostè dit que ho aconseguiria. 
    Yesterday had you said that you will make it 
    'Yo had said that you will make it'

Again the distribution of subjects in Spanish shows that they have access to higher positions in the VP contrary to Catalan. Thus the analysis of verbal complexes needs to crucially take into account this higher position for subjects in Spanish.

6. The problem of locality in these verbal complexes.

    Given the proposal made so far we can address the locality issues raised in section 3.2. We noticed that no argument might intervene between finite verbs and infinitives with a postverbal subjects. The intervening elements with causative, object control and subject control infinitive are in italics:

    (77) *?Ayer *nos hizo a nosotros leer Juan el libro (causatives) 
        Yesterday to us-made to us to read Juan the book

    (78) *?Ayer nos prohibió a nosotros leer Juan este libro (object control) 
        Yesterday prohibited to us to read Juan this book

    (79) *les prometió a los familiares [darles el jurado la libertad a los prisioneros) (subject control) 
        to them-promised to the family members to give the jury liberty to the prisoners.

    Those sentences immediately improve if the argument is in post infinitival position. So there is a contrast with the examples above:

    (80) Ayer nos hizo leer Juan el libro a nosotros (causatives) 
        Yesterday to us-made to read Juan the book to us

    (81) Ayer nos prohibió leer Juan este libro a nosotros (object control) 
        Yesterday prohibited to read Juan this book to us

    (82) les prometió [darles el jurado la libertad a a los familiares] (subject control) 
        to them-promised to the familiairs to give the jury liberty to the familiars

    According to the analysis I proposed above the issue with the ungrammatical examples in (77)-(79) is due to how the verbal complex is built. One of the conditions of the formation of verbal complex is that all arguments must vacate the VP containing the infinitive before it is moved to a higher projection with the modal finite verb: VP is vacated of its arguments for Homer et al. (2009) and Asp P is vacated of its arguments for Hinterhölz (2008) Koopman and Szabolcsi (2000). The intervention of arguments between infinitive and finite verb in
(77)-(79) indicate that the VP has not raised to step 4 which requires its movement in the derivation proposed. Observe that when that infinitive movement to form the verbal complex fails, the sentences are grammatical as long as the subject is always higher than the complement that follows. When the main subject appears after the cause or the overt IO of the main clause the sentences are degraded as in (83b) and (84b).

(83) a. Ayer nos hizo Juan a nosotros leer el libro. (causatives)
    Yesterday to us-made Juan to us to read the book
b. *?Ayer nos hizo a nosotros Juan leer el libro. (causatives)
    Yesterday to us-made to us Juan to read the book

(84) a. Ayer nos prohibió Juan a nosotros leer este libro. (Object Control)
    Yesterday to us prohibited Juan to us to read this book
b. *?Ayer nos prohibió a nosotros Juan leer este libro
    Yesterday to us-prohibited to us Juan to read this book

This implies that main subjects end up licensed in a position higher than the other arguments. This can be also observed with verbs with Small Clauses:

(85) a. Por considerar intolerable los jueces la acción de la policía
    For considering intolerable the judges the action of the police
b. Por considerar los jueces [intolerable la acción de la policía].
    For considering the judges intolerable the action by the police

    c. *?Por considerar la acción de la policía los jueces [intolerable].
    For considering the action by the police the judges intolerable

Going back to our original examples, now we can understand what is wrong with the locality examples. They have orders in which the cause, IO argument is higher than the postverbal subject. But as we saw in (83b) to (84b) that input is impossible because those arguments cannot move above the post verbal subject position. I am proposing that the problem with (77) to (79) is the same problem we find in (83b), (84b) and (85b). Thus since the input is not possible, then the final output is also ungrammatical. The locality issue is reduced to a fact that the verbal complex violates the condition that requires subjects to be in a higher projection than the objects. Finally, by relating the possibility of post infinitival subjects in (3) to this higher projection in Spanish we account for why Catalan does not allow this distribution of subjects in (4).

7. Conclusions.
While many details remain to be fulfilled, I have shown that there exists striking parallelism between Spanish and Dutch, French, and Hungarian complexes. I entertained an approach with XP movement of predicates in order to form verbal complexes. This alternative overcomes many of the problems of the backwards control approach. XP movement of the verb and subsequent movement of the subject and objects leads to the post infinitival positions in Spanish. The examples with IO appearing after the object control verb V IO₁ INF DO₂/V INF IO₁ DO₂ should be analyzed in similar fashion with remnant movements. One very important assumption of this analysis is that postverbal subjects in the VSXP and VINF S X order are always moved; they must always end in a position higher than the final position of the object. Consequently, this approach provides a clear link between VSXP order and V INF S XP; languages like Catalan or Italian do not have this higher position and therefore do not allow these orders.

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