

Spanish Null Complementizer as a PF-Prefix*

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This paper aims to account for the distribution of the null complementizer(null C) in Spanish. Although the presence of the complementizer *que* is basically obligatory in this language, certain classes of verbs may allow the omission of *que* in complement position. However, this is not always the case when an overt lexical element appears preverbally. In addition, when complement clauses appear in non-canonical positions like topicalized position, the omission of *que* is also disallowed. Thus, in this paper I try to provide an account of why *que* can be omitted in some environments and cannot in other environments. For this, I critically review Brovetto's(2002) analysis of the null C in Spanish. I further discuss whether some analyses of the English null C can be extended to Spanish. I argue that these analyses are not satisfactory enough to deal with Spanish data. By modifying Bošković & Lasnik's(2003) PF-Merger analysis, I propose that the Spanish null C is a PF-prefix: it must attach to a verb on its right under adjacency. I show that many examples can be accommodated by this proposal. I further show that the obligatory subject-verb inversion in Spanish *wh*-questions receives a new account under my proposal.

Key Words: Null Complementizer/ PF-Prefix/ Spanish Syntax/ Generative Grammar

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1. Introduction

The aim of this paper is to account for the distribution of the Spanish null complementizer (henceforth, null C) in *que*-less clauses. For this, I will first review Brovetto's (2002) analysis of the Spanish null C and point out that it faces some problems. I will also review some analyses of the English null C (Stowell 1981, Ogawa 2001 and Bošković & Lasnik 2003) and discuss whether these analyses can be extended to Spanish. I will argue that these analyses are not satisfactory enough to deal with Spanish data. Therefore, I will propose an alternative account. Concretely, I will propose that the Spanish null C is a PF-prefix that must attach to the following host. Finally, I will show that the obligatory subject-verb inversion in Spanish direct and indirect *wh*-questions receives a new account under my analysis.

It is well-known that English frequently allows the omission of the complementizer *that* in informal style (Quirk et al., 1985, 1049), as shown in (1).¹⁾

- (1) a. I believe [that John is smart]
 b. I believe [John is smart]

Unlike English, Spanish does not allow the omission of the complementizer *que*, as shown in (2).

- (2) a. Creo [que Juan es listo]
 b. *Creo [Juan es listo]

1) The omission of *that* is not always allowed in English. As Frank (2004) notes, the semantic type of matrix verbs seems to play a crucial role in allowing the omission of *that*: bridge verbs such as 'say' allow the omission, but non-bridge verbs such as 'quip', 'whisper' or 'murmur' do not. In addition, non-factive verbs such as 'think' allow the omission, whereas factive verbs such as 'regret' do not.

However, there are some cases in which complement clauses may appear without *que*. Certain classes of verbs that usually take subjunctive clausal complements allow the omission of *que*, as illustrated in (3).

- (3) a. Lamento [piense eso tu padre]
 lament-1s think-SUBJ-3s that your father
 'I regret that your father think that'
- b. Espero [se solucionen pronto los problemas]
 hope-1s SE solve-SUBJ-3pl early the problems
 'I hope that the problems will be solved soon'
- c. Les rogamos [se abrochen los cinturones]
 CL beg-1pl SE fasten-SUBJ-3pl the seat belts
 'We beg you to fasten your seat belts'
- d. Me alegra [sigas mejorando de salud]
 CL please-3s keep-SUBJ-2s improving of health
 'I am glad that your health is improving'
- e. Nos preocupa [hayas estado malo]
 CL worry-3s have-SUBJ-2s been bad
 'We worry about your being sick'
- ((a,c) from Gallego(2006), (b) from Broveto(2002),
 (d,e) from Torrego(1983))

The omission of *que* is not possible with verbs of saying such as *decir* 'say' and with factive verbs such as *confesar* 'confess', which usually take indicative clausal complements, as shown in (4).^{2,3)}

2) However, this does not mean that the omission of *que* is restricted to subjunctive clauses: *que* may be omitted even in indicative clauses when the tense is conditional or future, as shown in (i).

(i) a. Dijo (que) llegaría / ?llegará
 he-said that he-arrive-IND-Cond / he-arrive-IND-Fut
 b. Confesó (que) mentiría si fuera necesario
 he confessed that he-lie-IND-Cond if it were necessary

- (4) a. *Dijo [llegó tarde a la reunión]
told-3s arrived-IND-3s late to the meeting
'He said that he arrived late to the meeting'
b. *Confieso [he mentido repetidamente]
confess-1s have-IND-1s lied repeatedly
'I confess that I have lied repeatedly'

According to Torrego(1983) and Brovetto(2002), in contrast to English, in Spanish the omission of the complementizer is a marked option found mainly in formal style. This is confirmed by the following examples, which are taken from the letters sent to me by the Embassy of Spain in Korea.

- (5) a. Mucho le agradecería [difundiese esta información
much CL thank-COND spread-SUBJ-3s this information
entre los profesores]
among the professors
'I would be very grateful to you if you would spread this
information among the professors'

Brovetto(2002, 34) suggests that the relevant restriction seems to be related both to the class of the matrix verb and to the semantic nature of the embedded clause: uncertainty or irrealis.

- 3) Finite complements with *que* of verbs of saying can be easily converted into infinitival complements without *que*, as shown (i) and (ii).
- (i)a. El gobierno dice que cuenta con testigos
the government say-3s that count-3s with witness
'The government says that it has witnesses'
b. El gobierno dice contar con testigos
- (ii)a. El hombre confiesa que es amigo de las cinco mujeres asesinadas
the man confess-3s that he is friend of the five women killed
'The man confesses that he is friend of the five women killed'
b. El hombre confiesa ser amigo de las cinco mujeres asesinadas

I will not be interested here in what is responsible for the omission of *que* in these examples.

- b. Le ruego [tenga a bien distribuir entre
CL hope-1s have-SUBJ-3s to well distribute among
'I hope that you will distribute this information among
sus estudiantes]
your students
your students'
- c. Le ruego [distribuya esta información entre
CL hope-1s distribute-SUBJ-3s this information among
los profesores interesados]
the professors interested.
'I hope that you will distribute this information among the
professors interested'
- d. Le ruego [dé la mayor difusión posible a esta
CL hope-1s give-SUBJ-3s the bigger diffusion possible to this
iniciativa entre el colectivo de profesores de español]
initiative among the collective of professors of Spanish
'I hope that you will distribute this information among the
professors'

Note that in (3) and (5) the complement clauses contain the subjunctive mood. Thus, the presence of the subjunctive mood seems to play a crucial role in allowing the omission of *que*. However, the ungrammaticality of (6) and (7) shows that the presence of the subjunctive mood does not always warrant the omission of *que*.

- (6) a.*[piense eso tu padre], lamento
think-SUBJ-3s that your father lament-1s
'That your father think, I regret'
- b.*[los alquileres hayan aumentado considerablemente] es
the rents have-SUBJ-pl raised considerably is
probable.
probable.

'That the rents have raised considerably is probable'

- (7) a. *Lamento [tu padre/él piense eso]
lament-1s your father/he think-SUBJ-3s that
(vs. Lamento [piense eso tu padre/él])
- b. *Espero [los problemas se solucionen pronto]
hope-1s the problems SE solve-SUBJ-3pl early
(vs. Esepro [se solucionen pronto los problemas])

(6a,b) show that the omission of *que* is disallowed in non-complement positions: topicalized position or subject position. (7a,b) show that the omission of *que* is disallowed even in complement position if an overt lexical element (lexical or pronominal subject) appears preverbally.

The description presented above raises the following questions: a) Why is the omission of *que* restricted to complement clauses? b) Why is the omission of *que* disallowed when an overt lexical element appears in preverbal position? In the rest of this paper I will address these questions.

2. Brovetto(2002)

1.1. Analysis

Let us first review Brovetto's(2002) analysis of the omission of *que*. She argues that the omission of *que* depends on the presence of the CP projection. Based on Rizzi's(2000) proposal that the CP projection can be splitted into a series of functional projections(Force, Topic, Focus and Finiteness Phrases), she claims that if an element that belongs to the C(omplementizer)-system is present, the complementizer field is activated and therefore the presence of *que* becomes obligatory. However, if an element that belongs to the C-system is not present, CP is not projected and the

presence of *que* is not required. This means that when *que* is not present in complement clauses, these are IPs.⁴⁾

Let us now look at how the examples are accounted for by her analysis. In (3) and (5) no elements belonging to the C-system appear in complement clauses. Thus, CP is not projected and the presence of *que* is not required either. This is why all the examples of (3) and (5) are ruled in. On the other hand, in (6a) the complement clause has been topicalized. The presence of the topic triggers the projection of CP and the presence of *que*. However, *que* is not present. As a result, the sentence is ruled out. The ungrammaticality of (6b) can be accounted for in the same way. It is generally assumed that Spanish preverbal subject bears a topic feature. The presence of the finite clause in subject position thus triggers the CP projection and the presence of *que*. However, this requirement is not satisfied. The ungrammaticality of (7a,b) also receives the same account. Preverbal lexical subject bears a topic feature and thus triggers the CP projection, which in turn requires the presence of *que*. However, this requirement is not satisfied either.

Brovetto further claims that her analysis allows to account for the impossibility of *que* omission in relative constructions. Under the standard analysis, relative clauses involve the presence of a null operator, which is generated in a position within the relative clause and moves to [Spec,CP], as shown below.

- (8) [El alumno [_{CP} Opi C [_{IP} *ti saque* la mejor nota]]] será
 the student get-SUBJ-3s the best grade will be
 elogiado.
 praised.

4) Bošković(1997a) argues that finite complement clauses without overt complementizer are IPs. However, he differs from Brovetto in arguing that null-operator relatives are IPs. The reader is referred to this book for more details. See also Kishimoto(2006) for an argument against Bošković.

The presence of the null operator triggers the CP projection and the presence of *que*. However, *que* is not present and the sentence is thus ruled out.

1.2. Problems

Brovetto's analysis, however, faces some empirical problems. Firstly, it cannot account for why (9b) is ruled out.

- (9) a. Yo espero [se solucionen pronto los problemas] y
 I hope-1s SE solve-SUBJ-3pl early the problems and
 Pedro espera [se solucionen lo más tarde posible los
 Peter hope-3s SE solve-SUBJ-3pl as late as possible the
 problemas]
 problems
 b.*Yo espero [se solucionen pronto los problemas] y
 Pedro [se solucionen lo más tarde posible los problemas]

(9b) differs from (9a) in that V-deletion(*espera* 'hope') took place in the second conjunct. Since no elements belonging to the C-system are present in the complement clause of the second conjunct, CP is not projected and the presence of *que* is not required. Nevertheless, the sentence is ruled out.

Secondly, it cannot account for why pseudocleft constructions such as (10a) and (10b) are ungrammatical.

- (10) a.*Lo que lamento es [piense eso tu padre]
 what lament-1s is think-SUBJ-3s that your father
 'What I regret is that your father thinks that'
 (vs. Lamento [piense eso tu padre])
 b.*Lo que espero es [se solucionen pronto los problemas]
 what hope-1s is SE solve-SUBJ-3pl early the problems
 'What I hope is that the problems will be solved early'

(vs. Espero [se solucionen pronto los problemas])

Consider (11).

- (11) a. It is believed [_{CP} C [_{IP} he is crazy]]
- b.*[_{CP} C [_{IP} He would buy a car]] was believed at that time
- c.*It was believed at that time [_{CP} C [_{IP} you would fail her]]

Stowell(1981) argues that the distribution of null complementizers can be accounted for in terms of the ECP. In (11a) the null C is properly governed by the matrix verb, whereas in (11b,c) it is not. Infinitival clauses behave differently from finite clauses, as shown below.

- (12) a. I tried at that time [C [PRO to fail her]]
- b. [C [PRO to buy a car]] was desirable at that time

In (12a,b) the empty category is not properly governed, but the sentences are grammatical. The unexpected grammaticality of (12a,b) leads Bošković(1997a) to claim that the infinitives in (12a,b) are not CPs but IPs and therefore must be analyzed as follows.

- (13) a. I tried at that time [_{IP} PRO to fail her]
- b. [_{IP} PRO to buy a car] was desirable at that time

Bošković(1997a) argues that (14) also shows that control infinitivals are IPs.

- (14) a. What the terrorists tried was [_α PRO to hijack an airplane]
 - b.*What the terrorists believe is [_α they will hijack an airplane]
- (Bošković, 1997a, 21)

If (14b) is ruled out by the ECP because the null head of α , the null C, is not properly governed, then the grammaticality of (14a) suggests that the infinitival clause is IP.

With this argument in mind, let us return to (10a,b).

- (10) a. *Lo que lamento es [α piense eso tu padre]
 what lament-1s is think-SUBJ-3s that your father
 b. *Lo que espero es [α se solucionen pronto los problemas]

Recall that BrovETTO argues that *que*-less clauses are IPs. If so, then (10a,b) are predicted to be ruled in on a par with (14a). However, the prediction is not borne out. The ungrammaticality of (10a,b) thus suggests that *que*-less clauses are not IPs but CPs with null C.

Thirdly, recall that BrovETTO attributes the ungrammaticality of (7a,b) to the absence of *que* by assuming that an overt lexical element (lexical or pronominal subject) in preverbal position bears a topic feature and thus triggers the projection of CP and the presence of *que*. Consider the following data.

- (15) a. Canta siempre Luis por la noche
 sing-3s always Louis at night
 ‘Louis always sings at night’
 b. Siempre canta Luis por la noche

As (15a,b) show, adverbs such as *siempre* ‘always’ and *a veces* ‘sometimes’ can precede or follow verbs. Based on this fact, let us suppose that these adverbs appear in the edge of v^*P or TP. However, in *que*-less complement clauses they are allowed to appear only in postverbal position, as shown in the contrast between (17a) and (17b).

- (16) a. Lamento que cante siempre Luis por la noche

- lament-1s that sing-3s always Luis at night
- b. Lamento *que siempre cante* Luis por la noche
- (17) a. ^{*/??}Lamento [*siempre cante* Luis por la noche]
- b. Lamento [*cante siempre* Luis por la noche]
- (Gallego, 2006, 37)

Notice that no elements belonging to the C-system appear in preverbal position in the complement clause of (17a). Therefore, CP is not projected and the presence of *que* is not required either. Nevertheless, the sentence is ruled out. The ungrammaticality of (17a) thus suggests that the possibility to omit *que* does not depend on the absence of an element belonging to the C-system in preverbal position.

Fourthly, BrovETTO's analysis cannot account for the grammaticality of relative constructions with overt relative operator such as (18).

- (18) El alumno [_{CP} a quien C [_{IP} quiero *t*]] estudia lingüística
the student to whom want-1s study-3s linguistics
'The student I love studies linguistics'

If we assume following the general analysis of relative constructions that the overt relative operator *a quien* 'to whom' moves to [Spec,CP], then it is not clear why (18) is not ruled out on a par with (8). Since BrovETTO argues that the presence of an element belonging to the C-system triggers the presence of CP, which in turn requires the presence of *que*, (18) is predicted to be ruled out because it does not contain the overt complementizer. However, the prediction is not borne out.

Finally, the following well-formed coordination example is incorrectly predicted to be ruled out by BrovETTO's analysis.

- (19) a. Juan ya sabía [que Pedro estaba casado] y
John already knew that Peter was married and

- [que su amiga sufriría mucho al saberlo]
 that his girlfriend will suffer a lot when she knows it
 b. Juan ya sabía [que Pedro estaba casado] y
 [C su amiga sufriría mucho al saberlo]

Note that the second conjunct of (19b) contains a lexical subject(*su amiga*) in preverbal position. Given the assumption that preverbal subject in Spanish bears a topic feature, CP is projected and therefore *que* is required to appear. However, the second conjunct does not contain *que*. Thus, Brovetto's analysis falsely predicts the sentence to be bad, contrary to fact.

2. Stowell(1981)

2.1. Analysis

Stowell(1981) argues that the distribution of null Cs can be accounted for if null complementizers are subject to the Empty Category Principle(ECP). Consider (20).

- (20) a. I believe [C [he liked linguistics]]
 b.*I believe very strongly [C [he liked linguistics]]
 c.*[C [John likes Mary]] Jane didn't believe
 d.*[C [He liked linguistics]] was widely believed.

Under the ECP analysis, (20a) is ruled in because the null C is properly governed by the matrix verb. (20b, c, d) are ruled out because the null C is not properly governed by the matrix verb.

2.2. Problems

However, Bošković & Lasnik(2003) point out that the ECP analysis faces some problems. Firstly, it cannot account for the ungrammaticality of (21).

(21)*They suspected and we believed [C Peter would visit the hospital]

(21) is a right node raising construction in which the first conjunct is deleted. Since the null C in the second conjunct is properly governed by the verb, the ECP analysis incorrectly predicts (21) to be grammatical, contrary to fact.

They further point out that the ECP analysis cannot account for the grammaticality of (22).

(22) The child [C [Alexis was waiting for]] was lost.⁵⁾

Spanish examples also raise problems for the ECP analysis. Consider the following data.

- (23) a.*Lamento [C tu padre piense eso] (=7a))
 b.*Espero [C los problemas se solucionen pronto] (=7b))
 c.*^{??}Lamento [C siempre cante Luis] (=17a))

Since the matrix verb properly governs the null C, the sentences are predicted to be ruled in. However, the prediction is not borne out.

5) An(2007) points out that (i) poses a similar problem for the ECP analysis.

(i) [What C [John likes]] is apples.

In (i) the null C is not properly governed. Therefore, the ECP account falsely predicts (i) to be bad, contrary to fact.

Bošković & Lasnik further point out that the ECP analysis is conceptually problematic, because it is crucially based on the notion of government, which has been eliminated due to its arbitrariness in the Minimalist Program.(Chomsky, 1995)

3. Ogawa(2001)

3.1 Analysis

Consider the contrast between English and French examples.

(24) I believe (that) John is smart (= (1b))

(25) Jean croit *(que) elle était malade
 John believe-3s that she is sick

As shown in the contrast between (24) and (25), French does not allow complementizerless complement clauses. To answer the question of where this contrast comes from, Ogawa(2001) notes the fact that main verbs undergo overt raising in French, whereas they do not in English(cf. Pollock, 1989) and claims that the licensing of null Cs is closely related to the overt/covert raising of matrix verbs.

(26) Ogawa's Generalization

If an overt C is required in a finite (nonfactive)
 complement clause, the verb that selects it is obligatorily
 raised overtly

Since the presence of the overt complementizer is required in French, the matrix verb overtly raises to T. In contrast to French, since the presence of the overt complementizer is optional in English, the matrix verb does not

raise.

3.2. Problems

However, the following examples seem to undermine Ogawa's generalization.

- (27) a. Lamento [piense eso tu padre] (= (3a))
 lament-1s think-SUBJ-3s that your father
 b. Espero [C se solucionen pronto los problemas] (= (3b))
 hope-1s SE solve-SUBJ-3pl early the problems

In order for Ogawa's generalization to work in Spanish, it is crucial to show that, in contrast to verbs that do not take *que*-less clauses, verbs that may take *que*-less clauses such as *lamentar* 'lament' and *esperar* 'hope' do not undergo overt raising just like English main verbs. However, the following data show that they also raise overtly.

- (28) a. Juan loi lamentak [VP siempre [VP tk ti]]
 John it lament-3s always
 'John always regrets it'
 b. Esperok [VP siempre [VP tk una buena noticia]]
 hope-1s always a good news
 'I always hope good news'

In addition, the notion of overt verb raising needs to be clarified. English Double Object constructions suggest that V overtly moves to v.(cf. Larson, 1988)

- (29) John T [vP gavek [VP Mary tk a book]]

If so, then it will be natural to assume that in sentences like (24) V also undergoes overt raising to *v*, as illustrated below.

(30) I T [vP believe_k [VP *t_k* [CP C John is smart]]]

Therefore, for Ogawa's generalization to hold, we have to assume that V-raising to *v* is not a movement.

The following contrast also raises a problem for the generalization.

- (31) a. Fay believed (that) Kay left
 b. Fay quipped *(that) Kay left
 (Aoun et al., 1987, 544)

If we want to maintain the generalization, then we have to assume that verbs such as 'believe' do not raise overtly, whereas non-bridge verbs such as 'quip' do.⁶⁾

The following contrast also raises a problem for the generalization.

- (32) a. Mary believes strongly *(that) John will buy the book
 b. I think in general (that) people tend to like him
 (Kim, S.W.(2004) (25a), (34a))

The generalization cannot explain why the presence of *that* is obligatory in (a), whereas it is not in (b).

4. Bošković & Lasnik(2003)

4.1. Analysis

6) See Kim, S.W.(2006) for an account of the contrast.

Bošković & Lasnik(2003)(henceforth, B&L) attempt to account for the distribution of the English null C without appealing to the notion of government. Based on Pesetsky's proposal(1991) that the null C is an affix that must attach to a lexical category, they propose that the null C is an affix that undergoes PF Merger(a kind of Affix Hopping(Chomsky, 1957)) with a [+V] element under adjacency. Otherwise, it violates the Stranded Affix Filter.(cf. Lasnik, 1981)

Let us now look at how they account for the data.

- (33) a. I believe [C [he liked linguistics]]
- b.*I believe very strongly [C [he liked linguistics]]
- c.*[C [John likes Mary]] Jane didn't believe
- d.*[C [He liked linguistics]] was widely believed.
- e.*I distrust the claim [C Bill had left the party]

(33a) is grammatical because the null C is adjacent to [+V] element(the matrix verb) and therefore can undergo affixation. (33b,c,d,e) are ruled out because the null C is not adjacent to the verb and thus fails to undergo affixation. They further argue that the ungrammaticality of (34) can also be accounted for by assuming that gapping precedes PF-Merger.

- (34) *Mary believed [that Peter finished the school] and
Bill [C Peter got a job]

In other words, if V-deletion takes places before the null C attaches to its lexical host, then the sentence is ruled out as a Stranded Affix Filter violation.

Let us now discuss whether their analysis can be extended to the Spanish data. Firstly, the grammaticality of (3) and the ungrammaticality of (6) are well accommodated by the analysis.

- (3) a. Lamento [C piense eso tu padre]
 |__o__|
 b. Espero [C se solucionen pronto los problemas]
 c. Les rogamos [C se abrochen los cinturones]
 d. Me alegra [C sigas mejorando de salud]
 e. Nos preocupa [C hayas estado malo]
- (6) a.*[C no estés contenta con tu trabajo], lamento
 |__x__|
 b.*[C los alquileres hayan aumentado considerablemente] es probable

In (3) the null C attaches to the matrix verb under adjacency and the sentences are ruled in. In contrast, in (6) the null C and the verb are not adjacent and the sentences are all ruled out as a Stranded Affix Filter violation.

Their analysis also accounts for the contrast between (9a) and (9b), which raised a problem for Brovotto's analysis.

- (9) a. Yo espero [C se solucionen pronto los problemas] y
 Pedro espera [C se solucionen lo más tarde posible los problemas]
 b.*Yo espero [C se solucionen pronto los problemas] y
 Pedro [C se solucionen lo más tarde posible los problemas]

If we assume with B&L that gapping takes place before affixation, then (9b) is ruled out because the null C fails to undergo affixation.

4.2. Problems

However, there are some examples which are not accommodated by B&L's analysis.⁷⁾ Firstly, consider the following examples.

- (35) a. Les ruego una vez más [C difundan esta información
CL hope-1s one more time spread-SUBJ-3pl this information
entre los alumnos]
among the students
- b. Espero *mucho* [C se solucionen los problemas]
much
- c. Espero *profundamente* [C se solucionen los problemas]
deeply
- d. Espero *desde hace mucho tiempo* [C se solucionen los
problemas for a long time
- e. Espero *con todo mi corazón* [C se solucionen los
problemas] with all my heart

Since the null C is not adjacent to the matrix verb, their analysis predicts the sentences to be ruled out as a Stranded Affix Filter violation. However, the sentences are all grammatical, contrary to prediction.

Secondly, their analysis cannot account for why the following examples are ruled out.

- (36) a.*Lamento [C tu padre piense eso] (=7a)
 |_o_|
 b.*Espero [C los problemas se solucionen pronto] (=7b)

Since the null C is adjacent to the matrix verb, their analysis predicts the sentences to be ruled in. However, the prediction is not borne out.

Thirdly, to account for the fact that, in addition to verbs, adjectives can also host the null C in English, they suggest that elements with [+V] feature can host the null C.⁸⁾

7) See Kim, S.W.(2004) and Hong, S.S.(2005) for more problems in English.

8) As Radford(2004, 125) notes, the situation is more complex than it seems. For example, the adjective 'clear' allows the omission of *that*, whereas the adjective 'undeniable' does not, as

(37) I'm afraid [C he left]

However, Spanish adjectives cannot host the null C, as shown below.

- (38) a. ^{??}Es lamentable [C piense eso tu padre]
 is regrettable think-SUBJ-3s that your father
 (cf. Lamento [C piense eso tu padre])
 b. ^{??}Es preocupante [C hayas estado malo]
 is worried have-SUBJ-2s been sick
 (cf. Nos preocupa [C hayas estado malo])

Forthly, to account for the grammaticality of (39), where the null is not adjacent to a [+V] element, they suggest that the null C heading relative clauses can be hosted by a noun.⁹⁾

(39) The child [Op C [Alexis was waiting for *t*]] was lost

However, their suggestion cannot be extended to Spanish, because the null C is never allowed in Spanish relative clauses, as shown below.

- (40) a.*La chica [Op C estoy esperando *t*] no es tu hermana
 the girl be-1s waiting not is your sister
 'The girl I am waiting for is not your sister'
 b.*El libro [Op C estoy leyendo *t*] es divertido

shown below.

- (i)a. It is clear [he was framed]
 b. It is clear [C he was framed]
 (ii)a. It is undeniable [that he was framed]
 b. ^{??}It is undeniable [C he was framed]

9) There are many kinds of null Cs in their analysis. An(2007, 46) points out that this is conceptually not adequate, because it increases the burden on the learner.

the book be-1s reading is fun
 'The book I am reading is fun'

5. Toward a solution

Recall from section 4.2 that Spanish does not require the null C to be adjacent to the matrix verb. ((41)=(35))

- (41) a. Les *ruego una vez más* [C difundan esta información entre los alumnos]
 b. Espero *mucho* [C se solucionen los problemas]
 c. Espero *profundamente* [C se solucionen los problemas]
 d. Espero *desde hace mucho tiempo* [C se solucionen los problemas]
 e. Espero *con todo mi corazón* [C se solucionen los problemas]

Instead, Spanish seems to require the null C to be adjacent to the embedded verb, as illustrated by the contrast (a) and (b).

- (42) a.*Espero [C *los problemas* se solucionen pronto] (=(7b))
 b. Espero [C se solucionen pronto los problemas] (=(3b))
 (43) a.*Lamento [C tu padre piense eso] (=(7a))
 b. Lamento [C piense eso tu padre] (=(3a))

These facts suggest that what the null C needs to satisfy is not adjacency with a verb on its left but adjacency with a verb on its right. Based on this, I propose that the null C in Spanish is a prefix: it must undergo PF-Merger with a verb on its right.¹⁰⁾

10) According to Radford(2004), clitics differ from affixes in a number of ways. Firstly, a

Let us now discuss how my proposal accounts for the Spanish data. For ease of exposition, let us only take (41b) and (42a,b).

(41b) *Espero mucho* [C se solucionen los problemas]

_____o_____

(42) a.**Espero* [C *los problemas* se solucionen pronto]

_____x_____

b. *Espero* [C se solucionen pronto los problemas]

_____o_____

Since the null C is a prefix, that it is not adjacent to the matrix verb does not affect the grammaticality of (41b). Rather, adjacency between the null C and the embedded verb plays a crucial role in determining whether the sentence is grammatical or not. In (41b) the null C is adjacent to the embedded verb, therefore the sentence is ruled in. The grammaticality of (42b) receives the same account. In contrast, in (42a) the null C is not adjacent to the embedded verb due to the intervening preverbal subject. As a result, it cannot undergo affixation with the embedded verb and therefore the sentence is ruled out as a Stranded Affix Filter violation.

However, the following example seems to raise a problem for my proposal.

(44) a.*[*piense eso tu padre*], *lamento*. (= (6a))

b.*[C *piense eso tu padre*], *lamento*.

_____o_____

If the representation of (44a) were (44b), then my proposal that the null C

clitic is a reduced form of a full word (e.g. 'll, n't, 've), whereas an affix (like noun plural -s in *cats*) has no full-word counterpart. Secondly, Clitics can attach to phrases (e.g. 's can attach to the president in *The president's lying*), whereas an affix typically attaches to a word stem (e.g. the past-tense -ed affix attaches to the verb stem *snow* in *snowed*). For this reason, I will assume that the null C in Spanish is a prefix rather than a proclitic.

in Spanish is a PF-prefix would incorrectly predict the sentence to be ruled in because the null C is adjacent to the verb on its right. I will show that there is a way out of the problem if (44a) is analyzed in a different way. For this, let us briefly review Kim, S.W.'s (2006) C-stranding analysis of the English null C, which is the background of the solution that I will provide below. By extending Abels' (2003) proposal that TP movement is not licit if it leaves a complementizer behind, he proposes that TP does not strand C whether overt or covert. With this in mind, let us now look at how his proposal accounts for the data. Consider the following data.

- (45) a. *Mary believes strongly [John will buy the book]
 b. *Mary believes C *t*TP strongly [_{TP} John will buy the book]

Kim, S.W. argues that if (45a) is analyzed as (45b), then the sentence can be ruled out because the null C remains stranded from TP after extraposition has taken place. A question arises as to why the embedded CP rather than TP does not move. In other words, there is a possibility to analyze (45a) as (46).

- (46) Mary believes *t*CP strongly [_{CP} C John will buy the book]

If the representation of (45a) were (46), then the sentence would be falsely ruled in. To answer this question he assumes that CPs with *that* are a full phase while CPs without *that* are not. He further assumes that a full phase is mobile while a non-full phase is not. Given this assumption, (45a) is analyzed as (45b), not as (46).¹¹⁾

He argues that topicalization of clauses without *that* can also be explained in the same way.

11) Kim, S.W.'s proposal assumes that TP is basically mobile.

- (47) a.*The teacher was lying, Ben already knew
 b.*[_{TP} The teacher was lying], Ben already knew C *t*TP
 (48) [CP C The teacher was lying], Ben already knew *t*CP

(47a) must be analyzed as (47b), not as (48), because CPs headed by null C are not a full phase and, thus, not mobile. For this reason, the null C gets stranded from TP after topicalization of the complement clause and the sentence is thus ruled out.

I will assume following Kim, S.W.(2006) that in Spanish CPs headed by null C are not a full phase and, thus, not mobile. With this assumption in mind, let us return to the Spanish data.

- (44) a.*[piense eso tu padre], lamento. (= (6a))
 b.*[C piense eso tu padre], lamento.
 |_o_|

Given the assumption, (44a) is analyzed as (49), not as (44b).

- (49) * [_{TP} piense eso tu padre], lamento C *t*TP

Since the null C is left alone after topicalization, it cannot undergo affixation with the embedded verb. As a result, the sentence is ruled out as a Stranded Affix Filter violation.

By adopting Kim, S.W.'s assumption we can also account for the ungrammaticality of the examples which remained unexplained under Brovetto's analysis. Let us first consider pseudocleft examples.

- (50) a.*Lo que lamento es [piense eso tu padre]
 (vs. Lamento [piense eso tu padre])
 b.*Lo que espero es [se solucionen pronto los problemas]
 (vs. Espero [se solucionen pronto los problemas])

Let us assume that (50a) and (50b) are analyzed as (51a) and (51b), respectively.

- (51) a.*Lo que lamento C tTP es [TP piense eso tu padre]
 b.*Lo que espero C tTP es [TP se solucionen pronto los problemas]

Since the null C gets stranded, the sentences are ruled out as a Stranded Affix Filter violation.

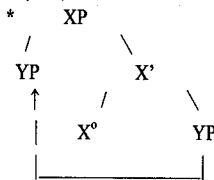
Gapping examples can be explained in the same vein.¹²⁾

- (52) a.*Yo espero [se solucionen pronto los problemas] y
 Pedro [se solucionen lo más tarde posible los problemas]
 b.*Yo espero [[TP se solucionen pronto los problemas] C tTP] y
 Pedro [TP se solucionen lo más tarde posible los problemas] C tTP]

If the representation of (52a) is (52b), then the sentence can be ruled out as a Stranded Affix Filter violation because the null C gets stranded from TP.

- 12) Analyzing (52a) as (52b) seems to violate the Anti-locality Constraint which prohibits movement from complement to specifier position within the same phrase (and from specifier to specifier position within the same phrase). In other words, movement that is too short is ruled out.(cf. Abels, 2003)

(i) Anti-locality Constraint



To solve this problem I will assume that TP raises to a higher Spec, CP(Rizzi, 2000), as shown below.

- (ii) ... [CP TP C [.... [CP C tTP]]]

Finally, my analysis also accounts for the mysterious contrast between (53a) and (53b).

(53) a. Lamento [CP C [_{TP} cante siempre Luis]]

|__o__|

b. *^{??}Lamento [CP C [_{TP} *siempre* cante Luis]]

|____x____|

(53a) does not raise any problems in that the null C is adjacent to the embedded verb and can thus undergo affixation with it under adjacency. In contrast, in (53b) the null C stops being adjacent to the embedded verb due to the adverb *siempre*. Therefore, it cannot undergo affixation with the embedded verb and the sentence is ruled out as a Stranded Affix Filter violation.

Although my proposal that the null C is a prefix is similar to Kim, S. W.'s(2006) proposal that TP does not strand C, I would like to point out that there is a difference. Consider the following example.

(54) a.*I hope [this book [you will read #this book]]

b.*I hope [CP C[CP this book [TP you will read #this book]]]

Based on the refined CP structure proposed by Rizzi(2000), he assumes that the embedded topic moves to a lower Spec, CP. As a result, the null C gets stranded from TP and the sentence is ruled out. Since preverbal subjects in Spanish are generally assumed to be a topic, the ungrammaticality of the following sentence can also be explained in the same way as (54a).

(55) a.*Lamento [tu padre piense eso]

b.*Lamento [CP C [CP tu padre [_{TP} piense eso]]]

As shown in (55b), due to the intervening element *Maria*, the null C gets stranded from TP and the sentence is thus ruled out. Therefore, Kim, S. W.'s proposal also accounts for the ungrammaticality of (55a).

However, the ungrammaticality of (56a) seems to raise a problem for his proposal. Recall that adverbs like *siempre* and *a veces* are generally assumed to appear in the edge of vP or TP. Therefore, it will be natural to assume that in (56a) the adverb *siempre* occupies a TP-adjoined position rather than a lower Spec, CP, as illustrated in (56b).

- (56) a. *^{??}Lamento [siempre cante Luis]
 b. *^{??}Lamento [_{CP} C [_{TP} siempre [_{TP} cante Luis]]]

Note that although the adverb intervenes between the null C and TP, the null C is still adjacent to TP. In other words, it does not get stranded from TP, because the adverb adjoins to TP. Therefore, Kim, S.W.'s analysis predicts the sentence to be ruled in. However, the prediction is not borne out. In contrast, my proposal that the null C is a prefix does not face this problem: it can account for the ungrammaticality of (56a) regardless of whether the adverb appears in a TP-adjoined position or in a lower Spec, CP position, because any intervening element between them will block affixation.¹³⁾

6. Potential problems and solutions

In this section I will try to provide answers to some questions that may

13) There seems to be a way to account for the ungrammaticality of (55a) under Kim, S.W.'s analysis if we redefine the notion of adjacency. Note that strictly speaking, in (55b) the null C is adjacent only to one segment of TP and not to the other segment of TP. If we assume that being adjacent only to one segment of a category does not mean being adjacent to that category, then we can say that in a structure like (55b) the null C is stranded from TP.

be raised regarding my analysis. Firstly, consider the following example.

- (57) Lamento [C no estés contenta con tu trabajo]
(Brovetto, 2002, 34)

Note that the negative particle *no* 'not' appears between the null C and the embedded verb. Thus, a question can be raised: Why does the negative particle not block affixation? If the negative particle were an element that breaks down adjacency between them, then the sentence should be ruled out, contrary to fact. To answer the question, I will assume with Zagana(1988) that unlike English negative particle *not*, Spanish negative particle *no* is a clitic and thus forms a part of a complex verb. One of Zagana's(1988, 155) arguments for analyzing *no* as a clitic is that unlike English counterpart, it must undergo head movement with the verb when the verb is fronted in questions, as shown below.

- (58) a. ¿Qué [V no dijo] Juan *t*V ?
b. *¿Qué [V dijo] Juan no *t*V ?
(59) a. How do they not know?
(cf. How don't they know?)
b. Where do they not govern?
(cf. Where don't they govern?)

Therefore, in (58a) the null C, despite appearances, is still adjacent to the verb(=the complex verb), as illustrated below.

- (60) ¿[Qué C [V no dijo] Juan *t*V]?
|_o_|

Secondly, consider the following data.

- (61) a. *Se lo diera, quería
 SE it gave-3s-SUBJ, wanted-1s
 b. Se lo dio, creo
 SE it gave-3s-IND, believe-1s
 (Luján, 1980, 417)

The ungrammaticality of (61a) can be explained if the sentence is represented as (62).

- (62) *[_{TP} Se lo diera], quería C *t*_{TP}

The null C is not adjacent to the embedded verb and the sentence is thus ruled out as a Stranded Affix Filter violation. However, (61b) seems to raise a problem, because the sentence is still good although adjacency between the null C and the embedded verb breaks down.

- (63) [_{TP} Se lo dio], creo C *t*_{TP}

Note that (61a) and (61b) differ in the mood of the embedded clause: in the former the clause is in subjunctive, whereas in the latter, in indicative. I speculate that this difference has something to do with the contrast between (61a) and (61b). By modifying the assumption adopted in section 6, let us assume that indicative CPs headed by null C are a full phase, whereas subjunctive CPs headed by null C are not. (cf. Uchibori, 2000) If we combine this assumption with Kim, S.W.'s (2006) assumption that only a full phase is mobile, then we can account for why (61b) is grammatical: since the indicative CP headed by null C is a full phase, it can move to the initial position of the sentence, as shown below.

- (64) [_{CP} C [_V Se lo dio]], creo *t*_{CP}
 [_o]

In (64), since the null C and the embedded verb are still adjacent after topicalization, the null C can attach to the embedded verb. As a result, the sentence is ruled in.

Thirdly, consider the following data.

- (65) a. Deseo [C se solucionen pronto los problemas]
b. Lamento [C piense eso tu padre]
- (66) a. ??Es deseable [C se solucionen pronto los problemas]
b. ??Es lamentable [C piense eso tu padre]

In contrast to (65a,b), (66a,b) are bad. However, if (66a,b) were analyzed as (67a,b), then the sentences would be falsely predicted to be ruled in.

- (67) a. ??Es deseable [_{CP} C [_{TP} se solucionen pronto los problemas]]
 |_____o_____|
 b. ??Es lamentable [_{CP} C [_{TP} piense eso tu padre]]
 |_____o_____|

I speculate that the contrast between (65) and (66) has something to do with the role that CP plays in the sentence: in (65) CP is a complement, whereas in (66) CP is a postverbal subject. By assuming that the canonical word order of Spanish is S-V-Adj, I suggest that (66a,b) are derived via TP movement stranding C, as shown below.

- (68) a.^{??} C tTP es deseable [TP se solucionen pronto los problemas]
 b.^{??} C tTP es lamentable [TP no estés contento con tu trabajo]

If (66a,b) can be analyzed as (68a,b), then we can explain why they are bad in contrast to (65a,b): the null C is not adjacent to the embedded verb

and this causes the sentences to be bad.¹⁴⁾

Finally, before I close this section, I would like to briefly discuss the question of optionality of the omission of *que*. Since the Minimalist Program disallows any form of optionality, the optionality can raise a problem for this theory. Consider the following data.

- (69) a. Les ruego [C difundan esta información entre los alumnos]
 b. Les ruego [que difundan esta información entre los alumnos]

According to my informants, the two sentences minimally differ in the meaning: in the former the speaker focuses more on the solution of the problems, whereas in the latter the speaker just expresses his hope. If we seriously consider this difference, then we can say that the omission of *que* is not optional.

7. A new account of subject-verb inversion in *wh*-questions

It is well-known that subject-verb inversion is required in Spanish direct and indirect *wh*-questions, as shown below.¹⁵⁾

14) One may argue that this account falsely predicts English sentences such as (ia) to be ruled out, because the null C remains stranded from TP after TP movement, as shown in (ib).

- (i)a. It is clear [C he was framed]
 b. C _{TP} is clear [_{TP} he was framed]

Note that unlike Spanish English contains an expletive subject 'it' in Spec, TP. Thus, I speculate that the clause with null C is base-generated after the adjective.

15) The only exception is *por qué* 'why'. I have no explanation for this.

- (i) ¿Por qué Juan compró ese libro? /¿Por qué compró Juan ese libro?

- (70) a. ¿Qué compró Juan?
 what bought-3s John
 ‘What did John buy?’
 b. *¿Qué Juan compró?
- (71) a. Pedro preguntó [qué compró Juan]
 Peter asked what bought-3s John
 ‘Peter asked what John bought’
 b. *Pedro preguntó [qué Juan compró]

In the literature, there have been many attempts to account for this phenomenon. In this section I would like to show that if we extend the claim that the null C is a prefix to this phenomenon, then it can receive a new account. For this, I will assume with Suñer(1994) that verbs raise only to T in *wh*-questions. I further assume with Alexiadou & Anagnostopoulou (1998) that in null subject languages like Spanish the EPP feature can be satisfied by the raising of V to T. Given these assumptions, (70) and (71) will be represented as, respectively, (72) and (73).

- (72) a. ¿_[CP] Qué C _[TP] compró Juan]]?
 |__o__|
 b. *¿_[CP] Qué C _[TP] Juan compró]]?
 |__x__|
- (73) a. Pedro preguntó _[CP] qué C _[TP] compró Juan]]
 |__o__|
 b. *Pedro preguntó _[v] qué C _[TP] Juan compró]]
 |__x__|

In (72a) and (73a) the null C is adjacent to the verb on its right and can thus undergo affixation with the verb under adjacency. As a result, the sentences are ruled in. In contrast, in (72b) and (73b) adjacency breaks down due to the intervening preverbal subject and the sentences are thus ruled out as a Stranded Affix Filter violation.

The present analysis also provides an account of a mysterious contrast. Recall that in Spanish adverbs like *siempre* can precede or follow verb.

- (74) a. Canta *siempre* Luis por la noche (=15))
sing-3s always Louis at night
b. Siempre canta Luis por la noche

However, when *siempre* precedes the verb in *wh*-questions, the sentence sounds worse than when *siempre* follows the verb.

- (75) a. ¿Qué canta siempre Luis por la noche?
b. ^{?(?)}¿Qué siempre canta Luis por la noche?

In (75b) the null C, which must attach to the verb on its right under adjacency, stops being adjacent to its lexical host due to the intervening adverb. As a result, the null C fails to undergo affixation and the sentence is thus ruled out as a Stranded Affix Filter violation.

- (76) ¿[CP Qué C [TP siempre [TP compra María en el mercado]]?

8. Remaining Problems and Conclusion

Yet, there is still a remaining problem. Consider (77).

- (77)*El alumno [Opi C [quiero ti]] estudia lingüística
the student love-1s study-3s linguistics
'The student that I love studies linguistics'

In spite of the fact that the null C is adjacent to the embedded verb, the

sentence is ungrammatical. This seems to undermine my proposal. Maybe the null C heading relative clauses, in contrast to the null C heading complement clauses, is licensed in a different way. However, I leave for future research exploring in more detail differences between them.

To conclude, I have tried to account for the distribution of the Spanish null C. For this, I have argued that Brovotto's(2002) analysis of the Spanish null C faces some empirical problems. I have also argued that some analyses of the distribution of the English null C are not satisfactory enough to be extended to Spanish. Based on the observation that the null C must be adjacent to the embedded verb rather than to the matrix verb, I have proposed that the Spanish null C is a PF-prefix that must undergo affixation with a verb on its right under adjacency. And I have shown that many examples can be accommodated by the present proposal. Finally, I have argued that the present analysis allows us to provide a new account of the obligatory subject-verb inversion in Spanish *wh*-questions.

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