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SOME ASPECTS OF WH-MOVEMENT AND SUBJECT-AUXILIARY INVERSION IN SPANISH AND ENGLISH ROOT AND EMBEDDED QUESTIONS

Abstract

This paper examines some general properties of *Wh*-movement in English and Spanish, with a contrastive focus on inversion in Spanish and English *Wh*-questions. This syntactic phenomenon has been extensively analyzed from several distinctive viewpoints. In this paper, we will concentrate on contrastive analysis of English and Spanish *Wh*-question formation with a focus on distinction between Subject-Auxiliary inversion (SAI), which occurs in root, but does not apply in embedded questions in English. In Spanish, by contrast, although there is a great deal of dialectal variation, there is no root/embedded asymmetry in *Wh*-Questions: the auxiliary verb must follow the interrogative element which appears initially in the sentence, both in matrix as well as embedded questions.

Key words: movement, *Wh*-movement, *Wh*-Criterion, SAI, root questions, embedded questions

Movement as a syntactic operation

The notion of movement as a syntactic operation is set to describe a situation when a syntactic constituent appears to be moved from its canonical position in the structure where it receives its interpretation and where it has been generated/it enters the structure, and appears in another syntactic position within the sentence. The moved element is said to leave a null copy or a trace at the place from which it has moved. Therefore, the displaced element occupies two positions in the structure, and is assumed to be phonologically realized only in its landing site, and not in its expected trace position or the *extraction* site. In order to have a better insight into the general concept of the operation of syntactic movement, we should take a closer look at the following set of data both in English and Spanish.

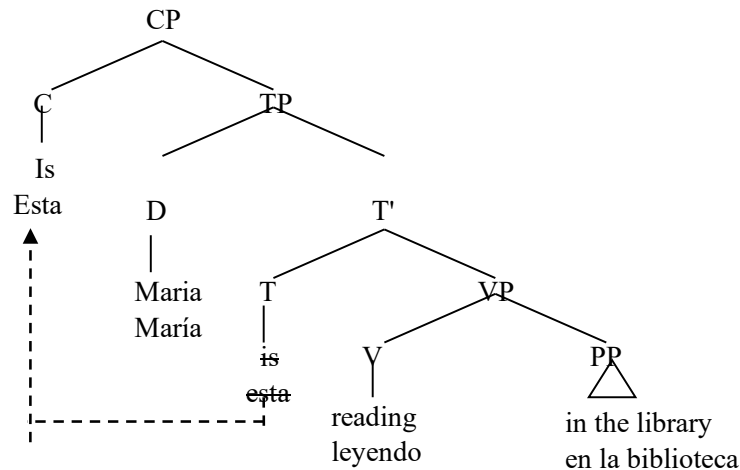
- (1) a. Maria [is] reading in the library.
b. María [está] leyendo en la biblioteca.
c. [Is]_i Maria *t_i* reading in the library?
d. ¿[Esta]_i María *t_i* leyendo en la biblioteca?

If we carefully examine the examples in (1), and recall the traditional description of subject – auxiliary inversion, we can draw a conclusion that the auxiliary verbs ‘*is*’ (1c) and ‘*esta*’ (1d) have been inverted with respect to their subjects.

Both in English and Spanish, in statements, auxiliaries are normally positioned after subjects, and this can be seen in (1a,b). However, in questions, as presented in (1c,d), an auxiliary undergoes inversion and, therefore, moves from its canonical position in the structure to a pre-

subject position. In order to have a better insight into this operation, we should take a look at the tree diagram presented in (2):

(2)



The tree diagram in (2) shows that the auxiliary moves from its canonical T position (the head of the Tense projection) in the structure to a pre-subject C position. It is important to be aware of the fact that auxiliaries normally occupy the head T position within TP. However, as it is shown in the tree diagram above, in the examples of (1 c,d) the auxiliaries come to be positioned in the head C position of a Complementiser phrase (CP). Accordingly, based on empirical evidence, this syntactic process is regarded as the movement of the auxiliary from the head T to the head C, or as T – C movement. The inverted auxiliaries move from the *head* T position in TP into the *head* C position in CP, and, therefore, this type of movement is referred to as *Head movement*.

Yet, another type of movement, which exhibits a greater contrast between English and Spanish (see Rivero, 1978) is presented by the examples in (3):

- (3) [_{DP} A beautiful woman]_i every man wants to see *t_i*.
 [_{DP} Una mujer bella], cada hombre la quiere ver.

If we observe the examples given in (3), we can draw a conclusion the bracketed determiner phrases would logically serve the function of the verb complement, and would naturally originate in post verbal complement position within the verb phrase (VP), as shown in (4):

- (4) a. Every man wants to [_{VP} see [_{DP} a beautiful woman.]]
 b. Cada hombre quiere [_{VP} ver [_{DP} una mujer bella.]]

Conversely, when observing the example given in (3), we can note that the bracketed DPs were displaced from their canonical position in the structure by being moved. This type of DP fronting and syntactic movement is referred to as *topicalization*. Among the Romance languages, Portuguese is the only one that has English-type topicalization similar to what we can see in (4a) (see Duarte 1987 and Raposo 1994), and we shall not be dealing with the contrast of this syntactic process in Spanish and English. However, it is important to state that topicalization moves a

constituent into the position of a specifier within a CP, and this is the property that is also shared with another type of movement called the *operator movement* which we turn now to:

- (5) a. [DP Which book]_i is Maria reading *t_i* in the library?
 b. [DP ¿Qué libro]_i está leyendo *t_i* María en la biblioteca?
 which book is reading M. in the library

When considering the examples given in (5), I will rely on the general assumption that English words such as *which/how* and their Spanish counterparts *qué/cómo* are interrogative determiners, and, therefore, that the phrases such as [which book] (5a) and are [qué libro] (5b) are the projections of those determiners, and, therefore, are labelled as DPs. However, there are two different kinds of syntactic movement operations involved in generation of the sentences in (5), the first one being the head movement. This type of movement, traditionally referred to as *auxiliary inversion*, has already been explained and exemplified in (1), and we shall be turning back to it in the later course of the paper when dealing with the contrastive analysis of generation of *Wh*-questions in Spanish and English. The second operation, involves the movement of *Wh*-expression from its canonical verb complement position into the specifier position within CP, leaving behind a trace or null copy at its extraction site or the position out of which it was moved or extracted. The italicised (*t_i*) in (5) makes this explicit: it marks that the DP position containing the trace was previously occupied by the moved element/complement and, therefore, cannot be filled by any other constituent. This process is usually regarded to as *Operator movement*, or more specifically *Wh*-movement/*Q*-movement when it affects *Wh/Q* expressions, respectively.

What will the focus of this paper is the formation of *Wh*-questions in English and Spanish, the auxiliary movement from T-C in *Wh*-questions, traditionally referred to as auxiliary inversion which occurs in root questions (matrix clauses) in English, as well as subject-verb inversion in both root and embedded *Wh*-questions in Spanish.

The basic concept of Wh Movement in Spanish and English Wh-Questions

As I have already briefly mentioned, two central properties of *Wh*-movement are, first, that a single *Wh*-constituent appears in clause-initial position, moving from its canonical object position in the structure to the position of a specifier within a CP, and, second, that the position of the verb is restricted in several ways. In order to examine this phenomenon in Spanish and English *Wh*-Questions with a focus on the syntactic contrast between the two languages, we shall take a look at the English and Spanish data of (6):

- (6) a. [¿Qué libro]_i ha leído María *t_i*? (Root Question)
 which book has read Maria
 b. [Which book]_i has Maria read *t_i*?
 c. El no sabe [[qué libro] [ha] [leído] [María]]. (Embedded Question)
 He not know which book has read Maria.
 d. He doesn't know [[which book] [Maria] [has] [read]].
 e. *He doesn't know [[which book] [has] [Maria] [read]].

Spanish and English obey the *Subjacency Principle* (Chomsky 1973) and have overt (*visible*) *Wh*-movement in questions and relative clauses. However, Spanish exhibits obligatory subject-verb inversion both in direct and indirect questions (root and embedded questions, respectively), in clauses where the *Wh*-phrase has been extracted from its canonical object position in the structure (Torrego 1984). This phenomenon will be explored more thoroughly in succeeding sections of this paper. The *Wh*-expressions normally function as verb complements, and this can be seen in the set of examples in (7) where these phrases remain in their canonical position in the structure.

- (7) a. María ha leído [ese libro].
 b. Maria has read [that book].

However, for the sentences to have an interrogative reading, the *Wh*-expressions in the examples in (6) needed to move from the position in the structure where they receive their features of interpretation. In order to support this claim with further evidence, we should take a look at the set of data in (8), which are regarded to as *echo questions*:

- (8) A: José Armando leyó [el libro].
 “José Armando read the book.”
 a. B: ¿ José Armando leyó [qué]?
 J . read what
 “José Armando read what?”
 A: I can speak several [exotic languages].
 b. B: You can speak [what languages]?

The sequence in (8a) and (8b) is only possible in a context where it echoes the previous sentence, and it could not be used in neutral context to form a question. These are termed as *wh-in-situ questions*, because *Wh/Qu* expression does not move, but rather remains *in situ*, or ‘in place’, in the canonical position associated with its grammatical function of direct object, or the verb complement, and complements are generally positioned after verbs. In English and Spanish, *Wh-in-situ* questions are mainly used as *echo questions*, to echo and question something that was previously said by someone else. This shows that echo questions like these that we have looked at in (8) suggest that the *Wh*-expressions in (6) originate as complements of the relevant verbs, and subsequently get moved to the front of the clause.

In summary, for the generation of sentences in (6), two movements needed to occur: the head movement by which the auxiliary moves from the head T position of TP to the head C position of CP, adjoining the null affixal interrogative complementiser \emptyset ; and the movement of the *Wh*-expression from a position below C, from the complement position within VP, into the specifier position in CP. However, in English, this type of movement in *Wh*-questions occurs only in root questions (6b, d), and not in embedded questions (6g). While obligatory inversion rules such as Subject-Auxiliary Inversion (SAI) in English or Verb/Second in other Germanic languages are commonly restricted to root sentences (Emonds 1976), in Spanish, the inversion rule involved in *Wh*-questions occurs in both root and embedded questions.

Subject-Aux Inversion in English Wh-Questions

The movement of a *Wh*-expression from its canonical position in the structure to the position of specifier within CP must be driven by a certain edge feature. (Chomsky 2005). In order to exemplify this notion proposed by Chomsky, it is possible to observe this phenomenon on the parallel level with the idea that T position in finite clauses carries an EPP feature requiring it to be extended into a TP projection containing a specifier on the edge of TP. In his more recent research, Chomsky argues that C in questions carries an edge feature [ef] which requires the C to be extended into a CP projection containing a specifier on its edge. What distinguishes this type of feature from EPP is that the latter is in conjunction with agreement. Therefore, T requires a constituent which it agrees with in person and number as its subject. Conversely, [ef] on C operates independently of agreement, allowing C to attract any type of constituent to move to the position of specifier within CP. However, it is important to state that questions in English are subject to the condition presented in (9):

(9) Interrogative Condition

A clause is interpreted as a non-echoic question if it is a CP with an interrogative specifier. (Radford, 2009)

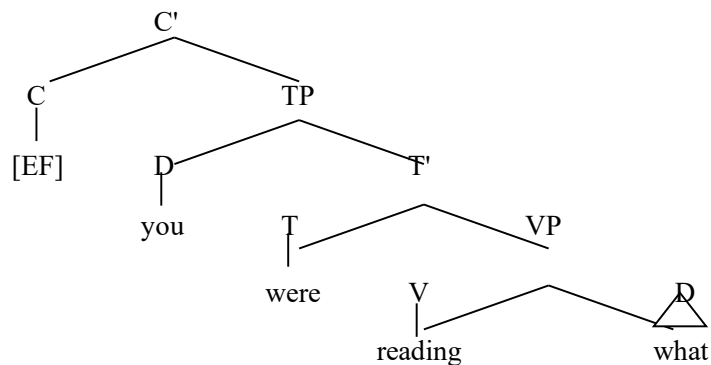
If *Wh*-elements originate within TP, it follows [ef] on an interrogative C will need to attract an interrogative expression to move to the specifier position within CP, in order for the relevant clause to be interpreted as interrogative. This can be illustrated by the example given in (10)

(10) Mary wants to know [what you were reading.]

We shall now examine the derivation of the bracketed *Wh*-question clause presented in (10). Firstly, the verb [*reading*] is merged with its complement [*what*] to form the VP [*reading what*]. Then, the past tense T-auxiliary [*were*] is merged with the resulting VP to form the T-bar projection [*were reading what*]. The pronoun [*you*] is in turn merged with this T-bar to form the TP [*you were reading what*]. A null interrogative complementiser [\emptyset] is subsequently merged with the resulting TP.

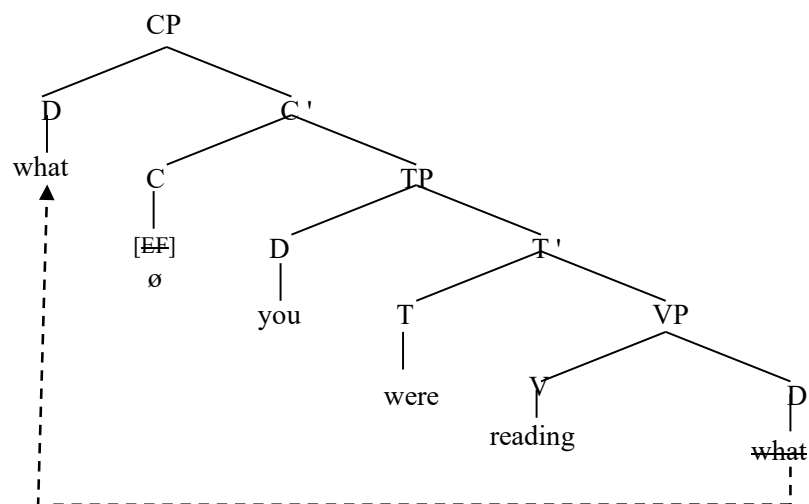
Since English is a language that requires *Wh*-movement in non-echoic *Wh*-questions, C also has an edge feature [ef] requiring it to have a specifier, with the specifier having to be interrogative in order for the resulting structure to be interpreted as a question in accordance with (9). Thus, merging C with its TP complement will form the C' shown in the tree diagram in (11) below, with the edge feature on C being bracketed, following the convention that features are enclosed in square brackets.

(11)



The [ef] on C enables it to “attract” the *Wh*-pronoun to move from its VP-complement position, as we see it in (11), to CP-specifier position. If [ef] is always deleted when satisfied in English (Chomsky 2006, p. 8), the edge feature carried by C will be deleted, and thereby inactivated, once its requirements are satisfied, so that *Wh*-movement derives the structure (12) below:

(12)



The example in (12), presented in a tree-diagram, shows that auxiliary inversion or movement of the auxiliary from T to C does not occur in embedded clauses in English, because an interrogative C does not carry a tense feature triggering auxiliary inversion in embedded complement clauses. This is one of the most important syntactic contrasts between English and Spanish, to which we shall turn in the later course of the paper when we start examining the syntax of Spanish *Wh*-questions.

Now, if we turn to the example in (13), we can notice that main-clause *Wh*-questions in English do involve auxiliary inversion, or movement of the auxiliary from T-C, as well as the movement of the *Wh*-expression.

(13) [Who]_i [was]_k Jane t_k [watching] t_i ?

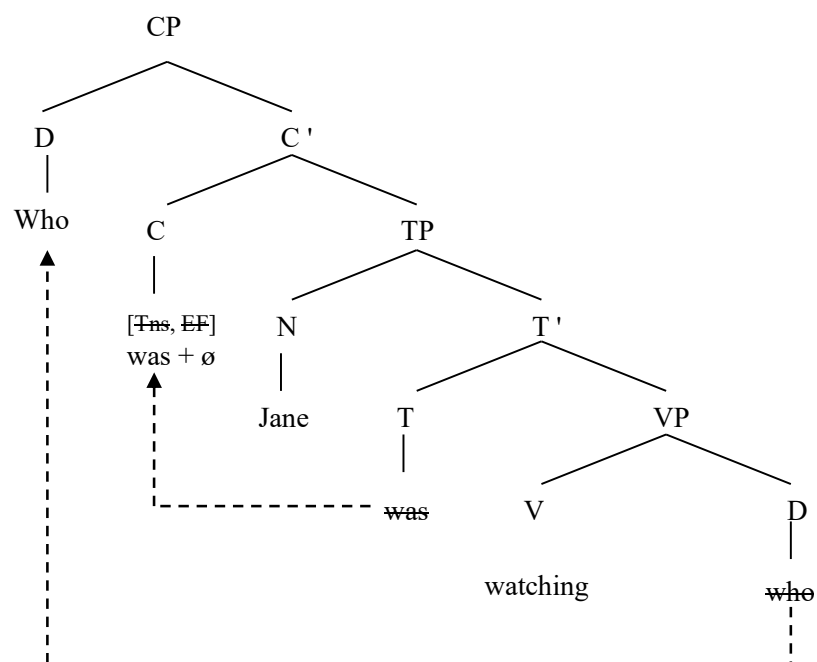
The derivation of (13) proceeds as follows: The interrogative determiner [*who*] is merged with the verb [*watching*], forming the VP [*watching who*]. The resulting VP is subsequently merged with the past tense auxiliary [*was*] to form the T-bar [*was watching who*] which is then merged with the noun [*Jane*] to form the TP [*Jane was watching who*]. This TP is then merged with a null interrogative C which carries an edge feature. Since (13) is a main-clause question, C will additionally carry a tense feature [Tns]. Given these assumptions, merging C with the TP [*Jane was watching who*] will derive the following structure:

(14)

[CP \emptyset Tns [TP [N Jane] [T' was [VP watching [PRN who]]]]]

This tense feature, which is positioned in C, attracts the auxiliary which is in T position, and it moves to C, attaching to a null affixal interrogative complementiser. The edge feature on the interrogative C triggers movement of the interrogative pronoun [*who*] to the position of specifier within CP, deriving the structure presented in the tree diagram in (15). The tense and edge features on C are deleted when their requirements are met, and arrows are indicating movements which take place in the course of the derivation.

(15)



In conclusion, we can state that English questions obey the Interrogative Condition of (9), which specifies that a clause is interpreted as a non-echoic question if it is a CP with an interrogative specifier, or a specifier containing an interrogative word.

Subject-Verb Inversion in Spanish *Wh*-Questions

In Spanish like in nearly all Romance languages, a subject may not intervene between non d-linked *Wh*-argument and the inflected verb in main (root) questions (Torrego 1984).

These restrictions on the position of the verb in Spanish *Wh*-questions are comparable to the effects of Subject–Auxiliary Inversion (SAI) in English. Now, if we take a look at the data given in (16), we can see that a subject constituent in Spanish cannot generally appear between the *Wh*-phrase and the main verb, and that, following a fronted *Wh*-element, only the verb-initial order is possible.

- (16) a. ¿Qué querían tus amigos?
b. *¿Qué tus amigos querían?
“What did your friends want?”
c. ¿Con quién vendrá Juan Miguel mañana?
d. *¿Con quién Juan Miguel vendrá mañana?
“With whom will Juan Miguel come tomorrow?”
e. ¿Qué puesto tiene Marco en la constructora?
f. *¿Qué puesto Marco tiene en la constructora?
“What position does Marco have in the company?”
g. ¿A quién le regaló Alejandro el coche?
h. *¿A quién Alejandro le regaló el coche?
“Who did Alejandro give the car to?”

This general type of data is not only peculiar to Spanish. A number of linguists (Rizzi and Roberts 1989, Rizzi 1991, 1995, Torrego 1984) have proposed that obligatory adjacency between fronted *Wh*-arguments and the verb in Romance languages is due to overt T raising to the C-position. Under this approach, it would be possible to analyze inversion in Spanish by drawing a parallel with English SAI. In English and in several other Germanic languages, a verbal element must follow immediately after the fronted *Wh*-phrase, as we can see in the examples of (17).

- (17) a. *Where you can drive your new car?
b. Where can you ride your new car?

In order to understand this process and its core properties in Spanish, we will examine the essential facts in this domain, which are illustrated by the examples of (16) and (17). Primarily, it is important to state that the examples of (16) show an instantiation of the phenomenon known as V-second. Within the framework of Chomsky (1986), this phenomenon is commonly accounted for by saying that V - T is required to move into C (C attracts elements) when SPEC of CP is filled. Even though it would be tempting to give a unified account of English Subject-Aux inversion and Spanish inversion, a straightforward extension of Germanic type inversion to Spanish faces problems. (see Uribe-Etxebarria 1991, Bonet 1990, Hulk 1993).

A well known characteristic of V-second effects is the asymmetry between root and embedded environments. For instance, in English, Subject-Auxiliary inversion does not apply in embedded questions. In Romance languages, by contrast, there is a great deal of variation. In Standard Contemporary Spanish (SCS), which I first and foremost tend to analyze in this paper,

this root/embedded asymmetry does not apply. Therefore, the main verb must be strictly adjacent to the fronted *Wh*-argument in matrix as well as embedded questions. Several studies on Catalan (Vallduví 1992, Bonet 1990, Sola 1992), Romanian (Dobrović-Sorin 1994) and Iberian Spanish (Contreras 1991, Uribe-Etxebarria 1991, and Zubizarreta 1998) have claimed that the lack of root/embedded asymmetry observed in the phenomenon of obligatory adjacency between question operators and T in these languages should be analyzed in terms of raising of the *Wh*-operator to Spec-TP rather than in terms of T raising to the C position. Therefore, two different approaches to Romance *Wh*-triggered inversion have surfaced.

Now, we shall first consider the fact that the word order restriction that we see in direct (root) questions in (16) also occurs in embedded *Wh*-questions, as shown in (18).

- (18) a. No me acuerdo [qué puesto tiene Marco].
 b. *No me acuerdo [qué puesto Marco tiene].
 'I don't remember what position Marco has.'

This is not ruled out in an analysis involving movement into C, but it does seem to be discouraged for some reason, to which we shall turn on later on.

Now, for the sake of comparison, we shall consider the following embedded question in Standard Contemporary English (SCE), where movement into C is disallowed:

- (19) I don't know whether Rodrigo went to Bosnia.

What is clearly ruled out is movement into C in the presence of a complementizer - when C is filled. The fact that Spanish allows the complementizer to be directly followed by the verb, as in (20), thus argues that the verb-initial order we have been observing is not the result of moving V into C.

- (20) a. Yo creo que se fue Rodrigo a Bosnia.
 'I think that Rodrigo went to Bosnia.'
 b. Yo no sé si se fue Rodrigo a Bosnia.
 'I don't know whether Rodrigo went to Bosnia.'

Another argument against movement of V - T into C comes from the fact that the contrast seen in (16) does not obtain with *Wh*-phrases such as *por qué*. The examples of (21), show that both word orders are possible with *por qué*, because it is one of the few adjuncts that is perfectly acceptable with and without subject-verb inversion in Spanish. (Rutten 1995)

- (21) a. ¿Por qué Cecilia habla tanto?
 b. ¿Por qué habla tanto Cecilia?
 'Why does Cecilia talk so much?'

In a V-second model, it is difficult to see why some *Wh*-elements would trigger movement of V - T into C while others would not. A final argument against Germanic-style V-second when dealing with Spanish has to do with the behavior of adverbs such as *apenas* 'barely', *solo* 'only', *sencillamente* 'simply', *regularmente* 'regularly' etc., which strongly prefer to be positioned to the immediate left of V-T, as in (22):

- (22) a. Alejandra apenas veía el cantante desde su asiento.
 'Alejandra could barely see the singer from her seat.'

- b. Ellos sólo pueden entrar a la fabrica cuando no hay nadie alla.
'They can only enter the factory when there is nobody else there.'
- c. Yo sencillamente no puedo dormir solo.
'I simply can't sleep alone.'
- d. Los hombres regularmente comen más que las mujeres.
'Men usually eat more than women.'

Now, we can state that if V - T really moves into C in *Wh*-questions, then we should find V-T to the left of the adverb, which would remain in its base position. Yet, this is not the case, as may be seen in the examples of (23).

- (23) a. ¿Desde cuál asiento [apenas] veías el cantante?
'From which seat could you barely see the singer?'
 - b. ¿En cuál ocasión [sólo] pueden entrar a la fabrica?
'In which occasion can they only enter the factory?'
 - c. ¿A cuál de esos chicos [sencillamente] no aguantas?
'Which of those kids can you simply not stand?'
 - d. ¿Por qué [regularmente] comen más los hombres?
'Why do men usually eat more?'

Now, we shall compare these examples to their English counterparts of (24), where it appears that T does move into C, to the left of the adverb:

- (24) a. Alex [barely] could see the singer from that seat.
 - b. *From which seat [barely] could Alex see the singer?
 - c. From which seat could Alex [barely] see the singer?
- (25) a. They [only] will eat burritos.
 - b. *In what country [only] will they eat burritos?
 - c. In what country will they [only] eat burritos?
- (26) a. He [simply] will not tolerate such behavior.
 - b. *Which behavior [simply] will you not tolerate?
 - c. Which behavior will you [simply] not tolerate?

Movement into SPEC of TP in Spanish

Based on the data that has been examined up to this point, it is possible to draw a conclusion that V does not move into C in Spanish *Wh*-questions. The question raised by this conclusion is what then accounts for the word order facts in the examples in (16).

Goodall (1991) states that there could be two possible solutions: Either the subject obligatorily moves rightward in *Wh*-questions, or V is base-generated in initial position within the clause, and it is only in non-*Wh* sentences that the subject moves leftward.

The first possibility doesn't seem to be borne out, since there is no evidence or reason why the subject should move to the right when the *Wh*-phrase moves into SPEC of CP. However, Contreras (1987) proposed that V could be base-generated in clause-initial position. Groos and Bok-Bennema (1986) make the important observation that by adopting this proposal of Contreras,

it is possible then to account for the facts in (16). All that is needed to say is that there is a single XP position to the left of V into which either a *Wh*-phrase or the subject (but, of course, not both) may move. Within the Barriers framework the most obvious choice would be SPEC of CP, but the fact that preverbal subjects appear to the right of C, as in (27), would seem to rule this possibility out.

- (27) Pienso que David se fue a Bosnia.
 'I think that David went to Bosnia.'

On the other hand, it was proposed that the so-called VP-internal subject hypothesis, claiming that the subject originates in the Spec of VP position, and that it is SPEC of TP which both the subject and the *wh*-phrase compete for. Therefore, SPEC of TP becomes an A'-position in Spanish, since it is never assigned a theta (Θ) role.

We have now seen, then, that there is good evidence that V remains in situ in Spanish *Wh*-questions, which thus supports an analysis of Groos and Bok-Bennema (1986) in which there is a single preverbal position (probably SPEC of TP) into which either a *wh*-phrase or the subject may move.

Movement into SPEC of CP in Spanish

In spite of the considerable attractiveness of the analysis that I previously presented, there is strong evidence that this approach cannot be completely satisfactory. What I will try to illustrate here is that preposed *Wh*-phrases and preposed subjects do not occupy the same position. Therefore, *Wh*-phrases are in SPEC of CP and preverbal subjects are in SPEC of TP. (Goodall, 2004)

We shall now analyze the following examples, considering the contrast between overt subjects of embedded infinitival clauses and *Wh*-phrases which have been extracted out of such positions, as seen in the set of data in (28) and (29).

- (28) a. ?* Yo considero este disco de David Bisbal ser el más interesante.
 'I consider this CD by David Bisbal to be the most interesting.'
 b. * Yo creo esta canción ser la peor.
 'I believe this song to be the worst.'
 c. * Yo decía esta mujer ser muy atractiva.
 'I said this woman to be very attractive.'
- (29) a. ? ¿Cuál disco consideras ser el más interesante?
 'Which CD do you consider to be the most interesting?'
 b. ?? La canción que yo creo ser la peor es "Nunca te olvidaré."
 'The song which I believe to be the worst is "Nunca te olvidaré."
 c. ? ¿Cuál casa decían ser muy bonita?
 'Which house did they say to be very pretty?'

Goodall (2004) states that the ungrammaticality of the sentences similar to those that we have analyzed in (28) is not at all surprising, since the embedded subjects appear to have no way

to get case. The relative grammaticality of the sentences in (29) must then be due to the *Wh*-phrase's ability to pick up case from some other position.

Following the analysis of Rizzi (1981) and Kayne (1984) for Italian and French, respectively, this is because the *Wh*-phrase has a trace in SPEC of CP and the matrix verb may assign Case to this position. The subject, in contrast, is in SPEC TP position.

A second argument in favor of distinct positions for *Wh*-phrases and subjects comes from the fact that in some dialects a PP may be *Wh*-extracted out of a fronted *Wh*-phrase but not out of a preverbal subject (Torrego (1985), Chomsky (1986)):

- (30) a. *Esta es la autora de la que [varias traducciones t] han ganado premios internacionales.

'This is the author by whom several translations have won international award.'

- b. ¿De qué autora no sabes [qué traducciones t] han ganado premios internacionales?

'By what author don't you know what translations have won international awards?'

(Goodall 2004)

This is presumably because the PP-trace is antecedent-governed in (30b) but not in (30a), thus suggesting that the subject [varias traducciones t] is in SPEC of TP and the *Wh*-phrase [qué traducciones t] is in SPEC of CP.

For a third piece of evidence, we shall turn to *Wh*-movement out of multiply embedded clauses, as in (24).

- (31) ¿Qué puesto dijo Manolo que Elena cree que Josefina ocupa en la empresa?

'Which position did Manolo say that Elena believes that Josefina has in the company?'

In the example of (31), Subjacency should force the *Wh*-phrase to stop off in at least one of the embedded clauses before moving into the matrix clause. If the landing site is SPEC of TP, then at least one of the embedded subjects should be obligatorily post-verbal. Such is not the case, however, as (31) shows (for most dialects, at least), thus again suggesting that *Wh*-phrases move into SPEC of CP.

At this point, we have seen evidence that V-T stays in situ in *Wh*-questions and that the *Wh*-phrase and the subject compete for the same preverbal position or SPEC of TP, while *wh*-phrases and preverbal subjects occupy different positions. This would appear to be a contradiction, but in fact it is not. The way out of this dilemma is to say that in [+wh] clauses (such as the matrix clause in (26)), the *wh*-phrase must move into SPEC of TP before moving into SPEC of CP. This accounts for why preverbal subjects are disallowed in [+wh] clauses, be they matrix or embedded, and for why fronted *Wh*-phrases and preverbal subjects occupy different positions (as we saw in (23)-(26)). In addition, this account makes some very interesting predictions.

First, it is expected that in clauses which are [-wh] but in which there is movement, the *Wh*-phrase will be able to move directly into SPEC of CP, without stopping in SPEC of TP. This is what happens in the embedded clauses in (31), but it should also occur in relative clauses, which are standardly assumed to be [-wh]. That this is true is shown by the lack of contrast between (32) (a) and (b).

- (32) a. Este es el profesor que todos admiramos.

b. Este es el profesor que admiramos todos.

'This is the professor who we all admire.'

Since the *Wh*-phrase does not need to pass through SPEC of TP, the subject is free to move there, as in (32a). The second prediction made by this analysis is that if the clause is [+wh] but there is no *Wh*-movement, then the subject shall again be free to move into the preverbal SPEC of TP position. There are two cases where this prediction can be tested. The first is with complementizers of the *whether* class (*si* in Spanish), which appear to be [+wh], as shown in (33).

(33) a. No sé si Rodrigo se fue a Bosnia.

b. No sé si se fue Rodrigo a Bosnia.

'I don't know whether Rodrigo went to Bosnia.'

According to this analysis, carried out by Goodall (2004), the prediction seems borne out, and the subject has moved into SPEC of TP in the example (33a).

Now, if we turn to the second case, we can notice another phenomenon. It has been argued that *Wh*-words such as *why* are base-generated in SPEC of CP. Rizzi (1990), for example, shows that French in situ *wh*-questions are allowed with all *wh*words except *pourquoi* 'why', as seen in (34).

(34) a. Il a parlé de quoi?

'He spoke about what?'

b. Il a parlé comment?

'He spoke how?'

c. *? Il a parlé pourquoi?

'He spoke why?'

(Rizzi 1990)

This otherwise unusual fact is easily explained if only *pourquoi* starts out in SPEC of CP position (simplifying Rizzi's account somewhat). If we assume that *por qué* in Spanish works in the same way, then we clearly predict that the subject will be able to move into SPEC of TP in a [+wh] clause headed by *por qué*, since no *wh*-phrase will pass through that position. This prediction is confirmed by the data shown earlier in (21), repeated here as (35).

(35) a. ¿Por qué Luis Miguel trabaja tanto?

b. ¿Por que trabaja tanto Luis Miguel?

'Why does Luis Miguel work so much?'

Here the subject may freely appear in the preverbal position. Similar facts obtain with the *Wh*-expression *cómo que* 'how can it be that.' The presence of the overt complementizer *que* hints that no movement into SPEC of CP has occurred, and the behavior of the subject confirms this, as seen in (36):

(36) a. ¿Cómo que Juana se fue a Bosnia?

b. ¿Cómo que se fue Juana a Bosnia?

'How can it be that Juana went to Bosnia?'

Here again, the subject is free to move into SPEC of TP, since there is no *Wh*-movement. These facts in (32)-(33) and (35)-(36) thus provide further support (in addition to the data that we have

previously discussed) for the hypothesis that *wh*-phrases land in both SPEC of TP and SPEC of CP when they move into [+*wh*] clauses.

Inversion in *Wh*-questions in Spanish influenced by Dialectal Differences

The data presented and examined in this paper is based on the data collected from Latin American Spanish, which is regarded as Standard Contemporary Spanish (SCE).

However, it is important to state that there are at least two other dialects of Spanish, however, whose word-order properties in *Wh*-questions differ significantly from those considered above. The first of these is the Iberian Spanish dialect examined by Torrego (1984). In Iberian Spanish, sentences like (31) (repeated here as (37)) seem to be ungrammatical, since at least one of the embedded subjects must appear in a post-verbal position.

- (37) ¿Qué disco dijo Miguel que Maria cree que Cris tiene en su estudio?
'Which CD did Miguel say that Maria believes that Cris has got in the studio?'

Thus unlike in SCE, in which the *Wh*-phrase needs to land in SPEC of TP only in [+*wh*] clauses, this dialect apparently requires the *Wh*-phrase to move into both SPEC of TP and SPEC of CP in any clause embedded under a [+*wh*] clause (apart from those clauses into which Subjacency does not require movement). On the other hand, [-*wh*] clauses which are not embedded under [+*wh*] clauses, such as relative clauses, do not require movement into SPEC of TP. Thus in both Torrego's Iberian Spanish (1984) and the Latin American dialects the subject may appear in pre-verbal position in relative clauses, as seen in (32).

The other well-known dialect which presents substantial differences in the form of *Wh*-questions is Caribbean Spanish. In this dialect, the basic contrasts that were presented in (16) do not obtain. This means that the subject may appear in pre-verbal position regardless of the movement of a *Wh*-phrase. This seems to indicate that *Wh*-movement in this dialect is as in English and many other languages where the *Wh*-phrase moves directly into SPEC of CP. Therefore, SPEC of TP is thus always available for the subject. For a discussion of what determines whether a *Wh*-phrase will need to land in SPEC of TP in a given language, see Goodall (1991).

In conclusion, I have been exploring Goodall's (2004) assumption that Spanish is a VOS language. The subject originates in SPEC of VP at the right periphery of VP and may either remain there or move into SPEC of TP if that position is available. In fact, an underlying SVO order, in which the SPEC of VP is at the left periphery of VP would also be consistent with the analysis presented by Goodall, if we assume that V obligatorily moves to T. Under either scenario, SPEC of VP will need to be able to receive Case. I will assume here that T governs the SPEC of its complement, thus allowing SPEC of VP to receive nominative Case. Either scenario will also have to account for the position of the subject in examples like (16b). On the descriptive side, I have attempted to provide a plausible and principled overview of the basic contrast seen in (16), in both matrix and embedded clauses, and for why this contrast does not obtain in certain cases. On the theoretical side, I have examined some recent types of evidence proposed by Goodall (2004), that SPEC of TP is not only A position, but also a potential A-bar position.

A contrastive observation of Inversion in Spanish and English *Wh*-Questions

Rizzi's *Wh*-Criterion

We have seen so far that the traditionally called inversion of the verb relative to the subject has sometimes been analyzed as movement to a position outside TP and can be problematic in several aspects in Spanish. We have also seen how Goodall (2004) and several other researchers describe this phenomenon. Now, before we look at further data, and draw another parallel line between English and Spanish *Wh*-Questions, we shall consider how the obligatory movements of the *Wh*-phrase and V-fronting have been accounted for by Rizzi (1996). In his article 'Residual Verb Second and the *Wh*-Criterion', Rizzi (1996) argues that the order of *Wh*-phrases and verbs in questions follows from the *Wh*-Criterion of (38):

(38) The *Wh*-Criterion

- a. A *Wh*-operator must be in a Spec-head configuration with $X^0_{[+WH]}$.
- b. An $X^0_{[+WH]}$ must be in a Spec-head configuration with a *Wh*-operator. (Rizzi 1996)

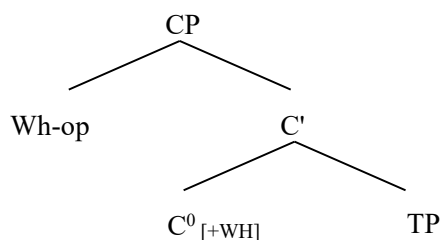
The conditions for the *Wh*-criterion are met if a *Wh*-phrase is in the spec of a CP projection and a $[+WH]$ head is in C.

In English, Spanish and Italian the $[+WH]$ feature is in T, and the verb must then move from T to C to satisfy the *Wh*-criterion.

However, unlike English, Spanish has the option of leaving the subject in post verbal position or the option of moving it to a *left dislocated position*. Thus, T - C movement combined with the availability of a postverbal subject position in Spanish yields subject verb inversion in questions.

It is standardly assumed that a $[+WH]$ feature (or Q feature) appears on a clause, designating it as having a question interpretation. The *Wh*-Criterion ensures that when this feature is present in a clause, a *Wh*-operator (a *Wh*-phrase) will occur in the Specifier of the $[+WH]$ head, licensing both the operator and the $[+WH]$ head. Rizzi discusses the possibility of variation in where the $[+WH]$ feature occurs in the clause, a point to which we will return below. For the moment, we shall rely on the assumption that the relevant head is C. In languages with overt *Wh*-movement, the *Wh*-criterion applies at S-structure, accounting for the appearance of a *Wh*-phrase in a clause-initial position. In more recent terms, the $[+WH]$ feature of C^0 would be analyzed as strong (it can attract other elements to move to this position). The conditions of the *Wh*-Criterion are met if a $[+WH]$ phrase is in Spec of CP, and a $[+WH]$ head is in C^0 . This is illustrated in (39).

(39)



(Rizzi 1996)

The position of the verb in interrogatives may also follow from the *Wh*-Criterion. To satisfy the *Wh*-Criterion, C° must contain a [+WH] feature. Rizzi proposes that in main clauses (non-lexically selected clauses), the [+WH] feature originates in T position, and moves to C via T-to-C movement.

The English asymmetry between embedded clauses and main clauses with respect to inversion is suggested to follow from differences in where the [+WH] feature is generated. In embedded clauses, [+WH] is a feature of the embedded C°. Movement of T-to-C is thus unnecessary.

In summary, the obligatory movement of a *Wh*-phrase to CP is necessary to satisfy the *Wh*-criterion proposed by Rizzi (1996). The phenomenon of inversion in root (or main) clauses is also accounted for, on the assumption that [+WH] is generated in T position in main clauses, and on C° in complement clauses.

However, as I have already explained and exemplified, Spanish does not exhibit the symmetry between main and embedded *Wh*-clauses when dealing with inversion. Unlike what happens in languages such as English, Dutch or Italian, Subject-Verb inversion in Spanish is obligatory in both root and embedded *Wh*-questions (Torrego 1984)

- (40) a. No sabía qué compraron esas chicas.
 not knew what bought those girls.
 “I didn’t know what those girls bought.”
 b. *No sabía qué esas chicas compraron.
 “I didn’t know what those girls bought.”

In order to provide an explanation for this occurrence, Rizzi (1996) suggests that inversion in embedded clauses may follow from cross linguistic differences in where [+WH] is generated.

In English, presumably [+WH] is generated on C°, so the *Wh*-criterion can be satisfied in embedded clauses without movement of T-to-C. In Spanish, the impossibility of pre-verbal subjects in questions suggests that the [+WH] feature may be generated in T, rather than C°. Then movement of T-to-C° would be necessary to satisfy the s-selection requirements of the matrix verb.

In conclusion, we saw that the *Wh*-Criterion accounts for the obligatoriness of *Wh*-movement. According to Rizzi’s *Wh*-Criterion, a *Wh*-phrase must obligatorily move to the Specifier of a category whose head is specified as [+WH]. This may also explain verb inversion - if the [+WH] feature is generated in T, then T must move to C position in order to meet the requirements of the *Wh*-Criterion.

Argumental agreement licensing

When it comes to *Wh*-movement in Spanish, it is possible to conclude that the landing site of *Wh*-movement and inversion in Spanish is CP. However, it is very important to state that this assumption has been questioned in the recent research, both for *Wh*-phrases and the verb inversion. Now, we will consider the derived position of the verb. Suñer (1994) argues that the verb is not in C° position, but is positioned lower in the structure, in the T position. Evidence supporting this analysis can be found if we observe the order of pre-verbal adverbs relative to the verb in the Spanish data from Zagona (2002) listed below:

- (41) a. ¿A quién jamás ofenderías tú con tus acciones? (Suñer 1994)

- PA whom never offend-cond. you with your actions
 “Who(m) would you never offend with your actions?”
 b. ¿Qué idioma todavía estudia Pepita en su tiempo libre?
 which language still studies Pepita in her time free
 “Which language does Pepita still study in her free time?”

In these examples, an adverb can intervene between the *Wh*-phrase in the Specifier of CP and the verb. It is generally assumed that adverbs adjoin to XPs, not to an X'. We shall now take a look at the corresponding sentence in English in (42), which is ungrammatical:

- (42) a. *Which language still does Pepita study?

Therefore, we can conclude that the adverbs must be adjoined to TP, and the verb must not be in C°. A second argument against movement of V to C° derives from the fact that certain *Wh*-phrases are compatible with a pre-verbal subject. This is illustrated in examples like (35) from Torrego (1984):

- (43) a. ¿En qué medida la constitución ha contribuido a eso?
 “In what way has the constitution contributed to that?”
 b. ¿Por qué Juan quiere salir antes que los demás?
 “Why does Juan want to leave before the others?” (Zagona 2002)

If the pre-verbal subject occupies the Specifier of TP (or is a TP adjunct), it must be that the verb has not moved higher than T. If the verb can remain in T in interrogatives like (16) without violating the *Wh*-criterion, then presumably this is also possible in other interrogatives. Suñer (1994) has proposed a licensing relation between the verb and its arguments to account for cases like (16). She shows that the generalization underlying the contrast between cases like (15), which allow a pre-verbal subject, and those which do not, concerns the status of the interrogative phrase as an argument of the verb. Non-argument interrogative phrases are compatible with pre-verbal subjects. The following generalization then must be accounted for.

- (44) a. *Argument *Wh*-phrase – subject – Verb . . .
 b. Non-argument *Wh*-phrase – subject – Verb . . .

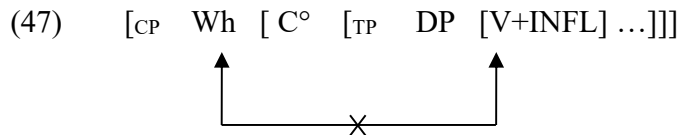
Suñer (1994) proposes that this dichotomy follows from an additional form of licensing that links the verb and its arguments, as presented in (45):

- (45) **Argumental Agreement Licensing**
 a. Argumental *Wh*-phrases must be licensed through symmetric Agreement between α (=Spec C) and β (=C).
 b. β Arg - agrees with γ (=V) only if β and γ are Arg-marked and no other Arg-marked . . . element is closer to γ .

Because the Verb is in T in Spanish, (46a) can be satisfied only if C agrees in features with T.

- (46) [CP Wh [C° [TP [V+INFL] ...]]]
-

According to (46), the *Wh*-phrase must agree with C° in order to satisfy the condition (45a). However, as C° lacks features, agreement is satisfied indirectly by means of (45b). The *Wh*-phrase agrees with V. If another argument of the verb occupies the Spec TP position, then (45b) is not satisfied:



In (47), a DP subject occupies the Specifier of TP. This phrase is an argument that is closer to V than the *Wh*-phrase. Therefore, the agreement relation between the *Wh*-phrase and V is blocked, and the *Wh*-phrase is not licensed as an argument. If the *Wh*-phrase were a non-argument, (45) would not be relevant, and a pre-verbal subject would be grammatical, as in (44). In other words, Suñer's analysis accounts for the contrast between argument and non-argument *Wh*-phrases with respect to the possibility of pre-verbal subjects. Argumental Agreement Licensing claims that pre-verbal subjects are ungrammatical in certain questions because they block a relation between the Specifier of CP and T. Thus, although the verb is lower in the structure, "inversion" effects similar to T-C movement are observed. An T-C analysis cannot be correct, however, given the distribution of pre-verbal adverbs in *Wh*-questions, and the limited availability of pre-verbal subjects.

Embedded questions and the landing site for *Wh*-movement

Now, let us consider the following set of examples, where we can see that in embedded questions, a *Wh*-phrase may appear to the right of an overt complementizer (Rivero 1978, 1980; Plann 1982):

- (48) a. Te preguntan que para qué quieres el préstamo.
 You ask(3rd.pl.) that for what want(2nd.sg.) the loan
 'They ask you what do you want the loan for.'
 b. Murmuró que con quién podía ir.
 murmured(3rd.sg.) that with whom could(3rd.sg.) go
 'He asked, by murmuring, who could he go with.'

This possibility is restricted to indirect questions under verbs of saying. Plann (1982) notes that the presence of the overt complementizer under these verbs correlates with an interpretation of the sentence as a reported question. If no complementizer is overt, the sentence is generally interpreted as a reported assertion. In view of cases like (48), the position of clause-initial *Wh*-phrases has been suggested to be lower than the Specifier of CP. There have been several proposals as to what the derived position for *Wh*-phrases is. One approach has been to examine whether the structure of CP is more elaborate or articulated than is typically assumed. Rivero (1978) argued, for example – on independent – grounds, that CP must be recursive. The *Wh*-phrase could then be assumed to occupy a lower specifier of CP¹:

¹ The notion that CP (then S-bar) may be recursive is introduced in Chomsky (1977). For elaboration of this hypothesis see Rizzi and Roberts (1989) and Suñer (1991).

- (49) . . . [CP [C° que [CP para quién C . . .]]]
 that for whom

A second alternative, proposed in Goodall (1991), is that the Specifier of TP may be a landing site for *Wh*-movement, and is presented in (50):

- (50) . . . [CP [C° que [TP para quién V+INFL . . .]]]
 that for whom

The proposed structure (50) is consistent with the evidence discussed above concerning the derived position of the verb, as Goodall also argues. Furthermore, assuming that subjects are generated VP-internally, the typical inversion effects are expected if V moves to T over the Specifier of VP:

- (51) [TP Wh-phrase [T V+T [VP Subject V' . . .]]]

The overt subject would remain in the Specifier of VP at S-structure. A third alternative as to the derived position of *Wh*-phrases is that they occupy the Specifier of a category between CP and TP:

- (52) . . . [CP [C° que] [XP para quién X° [TP (Subject) [V+T] . . .]]]
 that for whom

The possibility that such a category is present, and is a potential landing site for *Wh*-phrases has been mentioned in several studies, primarily in relation to the analysis of Focus Phrases which will not be analyzed in this paper. Goodall (1991) argues that, even if *Wh*-phrases move to the Specifier of TP, as in (51), there is also evidence for movement to a higher position.

Summary

In this paper, we presented some general characteristics of the syntactic operation of movement with the focus on *Wh*-movement and generation of *Wh*-questions in English and Spanish. We have outlined that *Wh*-questions generally have two core properties: obligatory movement of a *Wh*-phrase and, in certain cases, the non-occurrence of a pre-verbal subject. These properties have been analyzed as following from the *Wh*-Criterion of Rizzi (1996) and Goodall (2004). We saw that the possibility for pre-verbal subjects is related to the status of the *Wh*-phrase: only *Wh*-phrases that correspond to arguments of the verb are incompatible with a pre-verbal subject. The issue raised by this phenomenon is the landing site of the *Wh*-phrase. Possibilities that have been discussed in the literature include movement: (a) to the Specifier of a second CP, (b) to the Specifier of TP, and (c) to the Specifier of a category between CP and TP.

Even though it would be tempting to give a unified account of English Subject-Aux inversion and Spanish inversion, a straightforward extension of English type inversion to Spanish faces problems. We also presented a well known characteristic of V-second effects in the asymmetry between root and embedded environments in English, because the Subject-Aux inversion does not apply in embedded questions. Although we have mainly focused on Standard Contemporary Spanish, our secondary aim was to point out that there is a great deal of variation concerning this matter based on dialectal variation in Spanish. However, we have shown that in SCS, there is no root/embedded asymmetry: T must be strictly adjacent to the fronted *Wh*-argument in root as well as embedded questions.

References

1. Bonet, E. 1990. „Subjects in Catalan“ *MIT Working Papers* 13, 1-26. Cambridge
2. Chomsky, N. 2006. „Approaching UG from Below“ Ms., MIT
3. Chomsky, N. 2005. „On Phases. To appear in C.P.“ *Cambridge: MIT Press*.
4. Contreras, Heles. 1987. "Small Clauses in Spanish and English". *Natural Language and*
5. *Linguistic Theory* 5.225-243.
6. Contreras, H. 1991. „On the position of subjects“ *Syntax and Semantics*, 25, Academic Press
7. Dobrović-Sorin, C. 1994. *The syntax of Roumanian: Comparative studies in Romance*.
8. Emonds, J. 1976. *A Transformational Approach to English Syntax*, Academic Press, New York.
9. Goodall, G. 1991. "Spec of IP and Spec of CP in Spanish Wh-questions, University of California, Santa Barbara
10. Goodall, G. 1994. „Deviation from canonical word order in wh-questions.“ *Proceedings of WCCFL*, 23-45. CSLI, Stanford, California.
11. Goodall, G. 2004. „On the status of the Spec of IP.“ *Proceedings of WCCFL 10*, 175-182. CSLI, Stanford, California.
12. Groos, A. and Reineke B.B. 1986. "The Structure of the Sentence in Spanish", *Zagona*, 67-80, Dordrecht: Foris.
13. Gutiérrez-Bravo, R. 2002. „Structural Markedness and Syntactic Structure“ University of California, Santa Cruz. Hayes
14. Hulk, A.C.J. 1993. „Residual V2 and the Licensing of Functional Features“ *Probus*: 5, 127 - 154.
15. Kayne, Richard. 1984. „Connectedness and Binary Branching“. Dordrecht: Foris.
16. Suñer, Margarita. 1994. „V movement and the licensing of argumental wh- phrases in Spanish.“ *Natural Language and Linguistic Theory* 12:335-372.
17. Torrego, Esther. 1984. „On inversion in Spanish and some of its effects“. *Linguistic Inquiry* 15:103-129. *Linguistic Theory*. Cambridge, MA: MIT Press
18. Ordóñez, F. 1998. "Post-Verbal Asymmetries in Spanish." *Natural Language and Linguistic Theory* 16 (2): 313-345 *Linguistic Theory* 5.225-243.
19. Plann, S. 1982. "Indirect Questions in Spanish", *Linguistic Inquiry* 13, 297-312.
20. Plann, S. 1980. *Relative Clauses in Spanish Without Overt Antecedents and Related Constructions*. Berkeley: University of California Press
21. Radford, A., Atkinson, M., Britain, D., Clahsen, H. and Spencer, A. 1999. *Linguistics: An*
22. *Introduction*. Cambridge: Cambridge University Press.
23. Rivero, M. L. 1978. "Topicalization and WH-Movement in Spanish" *Linguistic Inquiry* 9, 513
24. Rivero, M.L. 1980. "On Left-dislocation and Topicalization in Spanish" *Linguistic Inquiry* 11, 363

25. Rizzi, L. 1996 "Residual Verb Second and the Wh Criterion", in A. Belletti & L. Rizzi (eds.) *Parameters and Functional Heads*, Oxford University Press
26. Rizzi, L. 1997 "The Fine Structure of the Left Periphery", in L. Haegeman (ed.) *Elements of Grammar*, Kluwer, Dordrecht, 281-337.
27. Suñer, M. 1984. "Free Relatives and the Matching Parameter" *Linguistic Review*, 363–387.
28. Suñer, M. 1994. "V-movement and the Licensing of Argumental Wh Phrases in Spanish", *Natural Language and Linguistic Theory*, 12, 335-372.
29. Sola, J. 1992. „Agreement and Subjects“ Universitat Autònoma de Barcelona Dordrecht: Foris Publications
30. Torrego, E. 1984. "On Inversion in Spanish and Some of its Effects" *Linguistic Inquiry* 15, 103-129
31. Uribe-Etxebarria, M. 1991. „On the structural positions of the subject in Spanish, their nature and their consequences for quantification.“, *Ms., Univ. of Connecticut*.
32. Vallduví, E. 1990. „The informational component“ UA Barcelona, Barcelona.
33. Zagona, Karen 2002. *The syntax of Spanish*, Cambridge University Press, London
34. Zubizarreta, M. L. 1997. „Word Order, Prosody and Focus.“ Cambridge: MIT Press.

NEKI ASPEKTI WH-POMJERANJA I INVERZIJE SUBJEKTA I POMOĆNOG GLAGOLA U NEZAVISNIM I ZAVISNIM PITANJIMA U ENGLSKOM I ŠPANSKOM JEZIKU

Sažetak

U ovom radu vršimo ispitivanje nekih općih karakteristika pomjeranja upitne riječi u pitanjima s upitnom riječju u engleskom i španskom jeziku, s kontrastivnim naglaskom na inverziju u Wh-pitanjima u španskom i engleskom. Posebno ćemo se pozabaviti kontrastivnom analizom Wh-pitanja u engleskom i španskom i inverziju subjekta i pomoćnog glagola (SAI) koja se dešava u nezavisnim, ali ne u zavisnim upitnim rečenicama u engleskom. U španskom jeziku, izuzev u slučaju određenih posebnih dijalekata, do inverzije dolazi i u zavisnim i u nezavisnim rečenicama, te se ne ispoljava asimetrija kao u engleskom jeziku.

Ključne riječi: pomjeranje, pomjeranje upitne riječi, inverzija subjekta i pomoćnog glagola, nezavisna pitanja, zavisna pitanja