

# Patterns of V<sup>o</sup>-raising in Long Head Movement, and Negation: Serbo-Croatian vs. Slovak

MARÍA LUISA RIVERO

(University of Ottawa)

## 0. Introduction\*

This paper is a report of research in progress in the area of *Long Head Movement* (LHM), or the extraction of a Verbal-like head across an intervening Aux-head to the Complementizer, or C°. This process creates V-second phenomena which differ in appearance from those of Germanic, but have parallel formal properties. Section 1 summarizes the main properties of LHM established in earlier research on Balkan, Old Romance, and Southern Slavic languages (see Rivero 1988b, and Lema and Rivero 1989a-b in particular). Section 2 separates two types of LHM languages not distinguished in earlier papers, namely the ones where Neg blocks LHM vs. those where it does not. Section 3 outlines properties of the first group, considering specific characteristics of Serbo-Croatian, and section 4 studies how the second group differs from the first, in view of the properties of Slovak LHM, which are given in detail. The main hypothesis is that contrasts between the two groups of LHM languages derive from the position of Negation within the clause. In the first group, which is extensive, Neg is higher than Tense, c-commanding it in the syntactic representation, similar to languages like Italian. In the second LHM group, which is less common, Neg is lower in the tree, similar to English, and does not c-command Tense in syntax. Nevertheless, in both groups, Neg is the head of a maximal phrase, and LHM does not cross it, as already hypothesized in earlier work on the basis of the first group of languages exclusively.

(\*) Research for this paper has been partially supported by the Social Sciences and Humanities Research Council of Canada under Grant 410-88-0101, the European Science Foundation under the Eurotyp Project, and the Ministry of Education and Science of Spain under its Sabbatical program for visiting scholars.

I am very grateful to the many colleagues and friends who made this paper possible. Several of the ideas presented here originate in joint research with José Lema, so I am extremely indebted to him. My colleague at the University of Ottawa Dan Donskov, a speaker of Croatian, was willing to burden his busy schedule to help with the Serbo-Croatian materials. My Slovak friend Helena Briestenská dedicated precious hours to my work in her visit to Kyoto (of all places). Without the generous time these two friends spent as informants, the present paper would not exist. I must also thank Rodica Ionescu for help beyond the call of duty with Rumanian, Emile Savov for the Bulgarian materials which form the basis of earlier work and are used in this paper too, Julie Sedivy for help with Czech, and Wayles Browne for bibliographical indications. Although this paper deals with Old Spanish only indirectly, the tireless assistance Montserrat Morales has provided with Old Spanish texts in many different occasions has been essential in establishing parallels between Old Romance and Slavic. A version of this paper was read at Glow 14, March 1991.

## 1. Long Head Movement: an overview

The recent literature in the Government and Binding framework distinguishes two types of verbal fronting: (a)  $X^{\max}$ -movement or VP-Preposing, the process which extracts a main V with its complements, as in (1), and (b)  $X^0$ -movement, or the fronting of  $V^0$  or  $Aux^0$  in isolation, as in Germanic (2a-b), where it is commonly assumed that *lesen* "read" and *are* have raised to the Complementizer position ( $C^0$ ). According to Chomsky's assumptions (1986), these extractions represent the two different options allowed by Universal Grammar. Namely, maximal projections or their heads may move, but not intermediate projections.

(1) Mary had to read the book, and [read the book] she will

- (2) a. Lesen Sie das Buch?  
b. Are you reading the book?

The two processes contrast in their locality effects. On the one hand, VP-Preposing moves the  $X^{\max}$  containing the V with Argument or Thematic structure, crossing a sequence of Auxiliaries, with an apparent unbounded effect, as in (3a-b). Also, VP-Preposing escapes Inner Island effects (Ross 1983) like Theta-governed complements (Rizzi 1989), as shown by Spanish (4). Pattern (4a) represents extraction from both a Factive and a Negative Island, while (4b) is an Extraposition Island also with a Negation, and (4c), a *Wh*-Island.

(3) a. Mary had to read the book, and [read the book] she may have.

- b. [Einer Kuchen backen] wird er doch wohl können  
A cake bake will he presumably can  
"Presumably, he can bake a cake" (Webelhuth 1985)

(4) a. [Leer el libro] siento no haber podido

"I regret that I have been unable to read the book"

b. [Leer el libro] no ha debido sin duda poder

"Undoubtedly, he must have been unable to read the book"

c. [Leer el libro] me pregunto cuándo podrá

"I wonder when he will be able to read the book"

On the other hand, Head-movement has been thought to be strictly local, in the sense exemplified by Germanic, so sensitive to Islands. For instance, a common GB analysis of (2a) consists of first moving  $V^0$  to Inflection ( $I^0$ ), to constitute the finite form with Tense/Agreement (*les-en*), with the subsequent movement of the complex as  $X^0$  to  $C^0$ . As shown by (5), this locality extends to Auxiliaries; since only the first  $Aux^0$  below  $I^0$  raises, it must be the only item available for the subsequent movement to  $C^0$ . Thus, raising a second  $Aux^0$  to  $C^0$ , as in (5b), or the main  $V^0$  across  $Aux^0$ , as in (5c), leads to (violent) ungrammaticality:

- (5) a. Has Mary been reading the book?    c. \*Reading you are the book?  
       b. \*Been Mary has reading the book?

The locality of Head-movement depicted in (5) is attributed to the Head Movement Constraint (HMC) (Travis 1984), making an X<sup>o</sup> move into the Y<sup>o</sup> which properly governs it, that is, one step only. According to Baker (1985, 1988) and Chomsky (1986), the HMC is not an independent condition in UG, but derives from the Empty Category Principle (ECP), requiring an EC to be properly governed.

The properties of Head-movement of V<sup>o</sup> and/or Aux<sup>o</sup> in present Southern Slavic, Balkan, and Old Romance languages differ from those of Germanic in important ways, as recent work shows (Lema and Rivero 1989a-b, 1990, Rivero 1988b, 1989b).

To this effect, consider two different aspects of Bulgarian word order —the first concerning main Vs, and the second Auxiliaries in sequence—, which are the result of X<sup>o</sup>-raising.

First, in Perfect patterns with preverbal Subject, the order is as in (6a), parallel to its English gloss, or to Spanish *Pedro ha leído el libro*: NP1 Aux V NP2. However, the ordinary unmarked order for independent or main clauses with null Subject is (6b), with V preceding Aux, in contrast with the deviant English (5c): V Aux NP2. The word order Aux V NP2 is ungrammatical, (6c), in contrast with the null subject option in Spanish, *Ha leído el libro*. Also, regardless of the presence/absence of NP1, fronting of V and NP2 is disallowed, as shown in (6d-e), identical to Spanish *\*Leído el libro Pedro ha* and *\*Leído el libro ha* in this particular respect.

- (6) a. Petur e pročel knjigata                    c. \*E pročel knjigata  
       Peter has read book+the                d. \*[Pročel knjigata] Petur e  
       “Peter has read the book”            e. \*[Pročel knjigata] e  
       b. Pročel e knjigata  
       Read has book+the  
       “He has read the book”

The traditional Slavic explanation for word orders like (6b) is Wackernagel's law (without using the specific label). Namely, in such constructions, attention focuses on the Aux as Clitic exclusively: it cannot be initial, so a constituent must precede it. To the GB eye, a much more intriguing issue is the process moving the non-finite V, a topic which has not concerned traditional Slavicists; in other words, triggering factors aside, what is the rule behind the word order in (6b)?

This Bulgarian pattern is reserved for root environments, much like Germanic (2), and does not result from VP-Preposing. Thus, in the cited papers it is argued that the V<sup>o</sup> *pročel* moves to C<sup>o</sup> bypassing the intermediate finite Aux *e* in I<sup>o</sup>, as an instance of LHM. When C<sup>o</sup> is filled, as in embedded clauses with a Complementizer, V<sup>o</sup>-raising fails to apply. From this perspective, the movement in (6b) is parallel to Germanic (2) both in typology and landing site, and unlike (3-4); however, it differs from Germanic Head-movement in the transported item.

LHM as in (6b) goes against the HMC, because an Aux<sup>o</sup> in the movement path is skipped by V<sup>o</sup>. In consequence, Lema and Rivero (1989a-b) conclude that this constraint is descriptively inadequate for V<sup>o</sup>-raising, the core case behind its motivation, and must be abandoned, joining other voices doubting its viability on the basis of perhaps less clear cases (Chomsky 1988, Ouhalla 1988 and see Baker and Hale 1990 for Incorporation in violation of the HMC too).

Head-movement including LHM may escape the strict adjacency imposed by the now dispensable HMC, but is still subject to the locality required by the ECP, the essential condition. The nature of this locality is shown by the properties of Bulgarian constructions with sequences of Auxiliaries.

The Bulgarian Renarrated Mood for opinions of a third party is formed on the Perfect Indicative by parallel Auxiliaries, as in the Present (7a), with the finite Perfect Aux followed by a "repeated" Aux as Participle, preceding the main V as Participle too. In (7a) the Subject is initial, so word order is canonical, similar to English *I have been reading the book* in the relevant sense. With no subject, unmarked word order is as in (7b), so the Aux after the finite one *must* front, and cannot remain in situ, (7c). In fact, the word order in (7b) represents the only grammatical option, as main V and object cannot front, (7d), and the main V alone cannot be extracted either, (7e). As a result, it can be reiterated that the process in (6b-7b) is not VP-Preposing, and its output differs from that of Germanic Head-Movement, as the contrast between (7b) and deviant (5c) shows.

- |     |  |  |
|-----|--|--|
| (7) | a. Az sŭm bil četjal knigata<br>I have+1s had read book+the  | c. *Sŭm bil četjal knigata                               |
|     | b. Bil sŭm četjal knigata<br>Had have+1s read book+the<br>"According to someone,<br>I am reading the book" (= (7a-b)). | d. *Četjal knigata sŭm bil<br>e. *Četjal sŭm bil knigata |

For Lema and Rivero (1989a-b) the finite Aux *sŭm* in (7b) functions as a link in the chain of coindexation allowing the Aux *bil* in C<sup>o</sup> to antecedent-govern its trace, so the structure complies with the ECP. Elements which lack finiteness, as determined by Tense but not necessarily Agreement (Number/Gender/Person), and intervene in the movement path, such as the Participle *bil* in (7e), interrupt the chain. Likewise, the V in C<sup>o</sup> in (6b) antecedent-governs its trace in the VP, across the Aux *e*.

Tense seems to be essential for the formation of LHM chains, but Agreement appears irrelevant. For instance, Slavic Participles including Bulgarian agree in Number and Gender with subjects, so in (7a-b) the finite Aux and the two Participles show (identical) Number. However, the presence of this shared feature has no effect on LHM, and the movement chain never extends beyond the item which complements the finite Aux. In consequence, I will omit mention of Agr and its location(s) in this paper (but see Chomsky 1988, Iatridou 1990, Ouhalla 1990, Pollock 1989 for different positions in this respect).

In brief, Head-movement is not as strictly local as required by the HMC, but it is still a short-range movement, sensitive to Islands.

Based on the above results, Roberts suggests (1990) that the LHM finite Aux does not “count” in a sense relevant for Relativized Minimality (Rizzi 1989), because it forms an A°-complex, which an A°-bar movement like LHM can cross with no conflict. While Rizzi (1989) had assumed that Head-movement was sensitive to the HMC=ECP exclusively, Roberts concludes that it is subject to Relativized Minimality too, within the A-head vs. A-bar head distinction. In this discussion, I will adopt the general idea that Relativized Minimality plays a role in Head-movement, without spousing a specific formulation of the factors blocking LHM, a topic requiring research beyond the scope of this paper (and see Baker and Hale 1990 and Li 1990 too). In 4.1, I will return to locality in relation to Slovak, which offers interesting parametric variations with other LHM languages in this area.

In languages with VP-Preposing and LHM such as Rumanian, Auxiliaries allowing LHM (a) are exclusively Aspectual/Temporal, that is functional like I° (and also C° and Det°)—such as Perfect *a* “he has” in (8a), or also Future *va* “he will” and Conditional *ar* “he would”, which I do not exemplify—, and (b) disallow VP-Preposing, as seen in (8b).

- (8) a. Citit- a cartea!                      b. \*[Citit cartea]      Maria nu a  
       Read has book+the!                    Read    book+the Mary not has  
       “He read the book!”

In contrast, a Modal like *a putea* “can” allows VP-Preposing, as shown in (9), and is lexical like V°, due to its additional lexico-conceptual structure.

- (9) [Citi cartea] Maria nu poate                      “Read the book Mary cannot”  
       Read book+the Mary not can

Thus, on the one hand a functional Aux° cannot contribute to the proper government of a VP-trace, as (8b) indicates, but is a transparent head in the formation of the LHM chain, as shown by (8a); this property is found without exception in Auxiliaries allowing LHM in all languages having the process. On the other hand, a lexical Aux° has the opposite characteristics, so it can be concluded that it is parallel to a Theta-marking V° in relation to its complement and extraction properties, as shown for Spanish *poder* “can” in (4).

As to the existence of LHM in natural language, the process has been thought impossible in view of Germanic, but it is very common in Bulgarian, Czech, Slovenian, Slovak, and Serbo-Croatian, and can be found in Albanian and Rumanian. In my view, each of these languages shows the core properties of LHM outlined above for Bulgarian, and also interesting parametric variations, in view of non-shared characteristics. In this paper, I will be concerned with properties of Slovak and Serbo-Croatian LHM in relation to Negation, and how they fit into the general analysis summarized in this section.

In Old Romance, LHM is documented in all major languages, excluding French. It survives until the 17th century in Spanish, and the 19th in European Portuguese,

in root constructions traditionally labelled Analytic Futures/Conditionals. For instance, in Old Spanish (10), the main V is initial, the (pronominal) Clitics, Aux, and phrasal complements follow, like in Bulgarian (although the examples cited above lack Pronominal Clitics, Bulgarian is parallel to Old Spanish in this area). LHM locates *dezir* in C°, bypassing the Aux *bedes* in I°, so as to avoid having the Clitic *lo* as clause-initial item, that is, for a Wackernagel effect found in present Southern Slavic too. Under this approach, *lo* is not infix-like, but the first constituent following C°.

- (10) *Dezir lo hedes al rey?* Zifar p. 124  
 Tell it will+2s to+the king? "Will you say it to the king?"

In the medieval period, LHM constructions like (10) contrast in syntactic distribution with the Synthetic Futures in (11) still current today, with the pronominal Clitic preceding the V-complex. These result from short Head-movement instead, or the Incorporation (Baker 1985, 1988) of V° (*dar-*) into Aux° (*-edes*) (Lema 1989), the more familiar process in current discussions of X°-movement.

- (11) *A quién nos daredes por cabdiello?*  
 To who us give+will+2s as leader?  
 "Who will you give us as leader?" Zifar p. 163

In Slavic, LHM as in (6b-7b) does not alternate with Incorporation, a characteristic of Old Romance. The contrasting syntax of Old Spanish LHM vs. Incorporation is studied in detail in Lema and Rivero (1990), but will not be discussed any further in this paper. However, Old Romance Incorporation, and the locality of LHM in (7b) doubly motivate the claim that the LHM Aux is an intervening head, not the Specifier of the VP whose V° moves, as pointed out in Lema and Rivero (1989b). In particular, Incorporation is Head-to-Head Movement (Baker 1985, 1988) not Head-to-Specifier raising. Slovak will motivate this aspect further (§4.2).

In view of the widespread geographic distribution of LHM, it is tempting to visualize medieval European V-second phenomena within a North-South dichotomy. In root environments, Northern languages, including Old French, show Germanic Short Head-movement, with the finite V or Aux in C° (and another item often in the Spec-of-CP). In this same environment, Southern languages from Portugal to the Black Sea may show LHM as just discussed, with a non-finite V or Aux in C°, and the finite Aux lower in the tree. Triggers for Short and Long Head Movement behind these V-second phenomena appear equally puzzling at times, as the many proposals in the literature suggest, but a wide range of cases of LHM seem to follow from Wackernagel's Law requiring support for Clitics—whether Pronominal or Auxiliary items—, as the tradition has maintained.

With this background in mind, I turn to further refinements of LHM in view of languages not considered in the previous papers, once I distinguish two types of languages in relation to Negation and LHM in §2.

## 2. Negation and two groups of LHM languages

Languages with LHM fall into two groups in relation to Negation. In a first group examined in the cited works by Rivero, and Lema and Rivero, the presence of Neg clearly blocks LHM. In a second group not considered in those papers, LHM applies unimpeded by Neg in extremely common patterns. This section outlines the characteristics of the two groups, proposing that the contrast follows from the different syntactic position of Neg in the two types of LHM languages. Section 3 provides additional motivation for the analysis given previously for the first group, by examining new Serbo-Croatian data. Section 4 explores the syntax of Negation in the second group, by studying in detail the properties of Slovak.

2.1. *Italian-type languages and LHM.* On the one hand, a first group of languages disallows Negation within LHM constructions. Grammatical word order patterns are exclusively affirmative, as seen above, and negative patterns are clearly ungrammatical, as pointed out in Rivero (1988b). The Bulgarian examples in (12) exemplify this situation, with (12a) the negative pattern with overt subject, (12b) the null subject version, and (12c-d) two imaginable patterns with LHM in the presence of Neg.

- |                            |                 |                            |
|----------------------------|-----------------|----------------------------|
| (12) a. Az ne sŭm          | pročel knjigata | b. Ne sŭm pročel knjigata  |
| I not have+1 s             | read book+the   | c. *Pročel ne sŭm knjigata |
| "I have not read the book" |                 | d. *Ne pročel sŭm knjigata |

This first group is very extensive, including among extant languages not only Bulgarian, but Rumanian, Serbo-Croatian, and Slovenian. According to available data, that is, absence of positive information, the major Old Romance languages with LHM fall into this category too, with European Portuguese grammarians stating the point explicitly, at a time when LHM constructions were almost current. In view of the typology of its Negation, Albanian should be within this group, but I lack data as to its status.

Rivero (1988b) and Lema and Rivero (1989a-b) argue that in this first group of languages, Negation heads a maximal projection taking Tense as complement, much like in the major Romance languages with the exception of French (and see Ouhalla 1990, Pollock 1989, Zanuttini 1989 for relevant discussion). In other words, Negation c-commands Tense in this set of languages, so following Zanuttini's terminology, I label this group the Italian-type (perhaps to the surprise of Slavicists). Given its position as intervening head, Neg° creates a barrier for LHM of the main V° to C°, blocking the process, which accounts for the ungrammaticality of LHM negative patterns, or the absence of such patterns in historical materials in Italian-type languages. In view of this situation, Roberts (1990) proposes that Neg is an A-bar head, with LHM an A-bar movement for heads; so a V° crossing Neg° in LHM violates Relativized Minimality.

However, as the tradition has maintained, it could be argued that *ne* "not" in (12b), or NegP in the Italian-type language, is located in such a way that it counts

as the first constituent in the clause supporting the clitic-like Aux *šim*, so that LHM becomes inapplicable, irrespective of the nature of Neg as head. Under this view, patterns like (12c-d) do not necessarily show that NegP is a barrier in the movement path of LHM, which is important in view of the existence of the second group of languages. Nevertheless, specific properties of Serbo-Croatian discussed in §3 will be crucial in motivating the proposed blocking effect of Neg<sup>o</sup> in the first group.

2.2. *English-type languages and LHM.* On the other hand, the West Slavonic languages Czech and Slovak allow negative LHM patterns with clear grammatical status, as seen in the common Slovak word order in (13), which is parallel to deviant Bulgarian (12d) in the relevant sense. Thus Negation has no blocking effect in this second group.

- (13) Ne- napísal som list  
 Not-written have+1 s letter  
 "I have not written the letter" or "I did not write the letter"

I will show that in this less extensive group, Neg is located differently, that is, immediately below Tense (and Aspect), as discussed in §4.2, as first proposed for English by Pollock (1989), but closer to the analysis in (Ouhalla 1990) in particular, so I will label this second group the English-type, perhaps to the surprise of Slavicists too. In brief, in this type of LHM language, Negation does not c-command Tense in syntax, and I will show that Neg<sup>o</sup> heads a NegP into which V<sup>o</sup>/Aux<sup>o</sup> raises, forming a complex which undergoes LHM to C<sup>o</sup>.

In conclusion, LHM languages may belong to the Italian-type or the English-type as to the location of Neg, accounting for their different behavior in LHM. Although LHM does not bypass Neg<sup>o</sup> in either group, two different strategies are observed: (1) in Italian-type languages, LHM fails to coexist with Negation, and (2) in the English-type language the effect of Negation is neutralized through Incorporation.

### 3. LHM and Negation in Serbo-Croatian

The aim of this section is to show that Negation is not crossed in LHM, as it is a blocking head, and that this situation applies irrespective of whether Neg is the first constituent in the clause or not, as shown by Serbo-Croatian. The section is organized as follows. In §3.1, I establish that Serbo-Croatian shows LHM with the characteristics described in Rivero (1988b), and Lema and Rivero (1989a-b) in particular. In §3.2 I establish the barrierhood of Serbo-Croatian Neg<sup>o</sup> for LHM.

3.1. *Serbo-Croatian LHM.* In Serbo-Croatian, LHM is found with the Perfect (=Past), Future, and Conditional Aux in root clauses, as in (14b-16b). This is also the situation in Rumanian, and Slovenian, and close to what is found in Czech and Slovak (Perfect and Conditional), and Old Romance (Future and Conditional). Notice that the fronted item can be a Participle, (14b-16b) or an Infinitive, (15b), as in other LHM languages too.



- (14) a. Ja sam čitao knjigu                    b. Čitao sam knjigu  
           I have+1s read book                    "I have read the book"
- (15) a. Ja ću čitati knjigu                    b. Čita ću (= Čitatis ću) knjigu  
           I will+1s read book                    "I will read the book"
- (16) a. Ja bih čitao knjigu                    b. Čitao bih knjigu  
           I would+1s read book                    "I would read the book"

As is the case for functional Aux<sup>o</sup> in LHM languages, the previous Serbo-Croatian Auxiliaries disallow VP-Preposing, as in (17). This is mentioned explicitly, but without naming the process, in Browne (1975), and informant judgments are clear-cut in this and other areas I discuss.

- (17) a. \*[Čitao knjigu] sam    b. \*[Čitati knjigu] ću    c. \*[Čitao knjigu] bih

Also, the locality of LHM targeting the head complementing the finite Aux, as in Bulgarian (7b), is applicable to Serbo-Croatian too, as deduced from the properties of the future formed with *da*, as in (18).

- (18) a. Ja ću da čitam knjigu  
           I will+1s PRTC read+1s book  
           "I will read the book"

On the basis of proposals in Rivero (1988b) for Balkan languages, the Serbo-Croatian Future Aux can receive the following treatment. It may take a VP-complement, as in (15a), or a sentential (IP or CP) complement with finite V, as in (18), within a structure frequent in Albanian, Bulgarian, Macedonian, Modern Greek, and Rumanian too. In (18), *da* is the X<sup>o</sup> heading the complement of the Aux. In this sense, it is similar to C<sup>o</sup>, or rather, I<sup>o</sup>, such as English *to* in *I have to read the book*.

We have already seen that a Bulgarian non-finite intervening head blocks LHM, preventing antecedent-government of the resulting trace. Likewise, the Serbo-Croatian null subject version of (18) with *čitam* extracted to the matrix C across an intervening *da* is ungrammatical, (19a). This situation confirms Rivero's earlier result based on Rumanian (1988b) that Balkan Inflectional Particles, unlike functional Auxiliaries, are barriers to LHM.

In view of Roberts' ideas (1990) in relation to Relativized Minimality in Head-movement, it can be assumed that such particles are A-bar heads which cannot be bypassed by LHM as A-bar Head-movement. These results appear compatible with Li's proposals (1990) for Short Head-Movement too, or a different view on related topics. Li assumes that Incorporation in the sense of Baker (1985, 1988) is possible out of VP-complements, but not sentential ones, as Baker proposes. Oversimplifying Li's view, the Head-movement chain should contain only A-positions, and not A-bar positions, so as to avoid a violation of Principle C of the Binding Theory by having a trace which is a variable but A-bound in the domain of its chain. Since C<sup>o</sup> and I<sup>o</sup> are A-bar positions, Head-movement out of sentential complements through C and I is barred. In LHM too, extraction is possible out of VP-complements, and across a

functional Aux which must count as an A-head under Li's approach, but not across the type of I°-head which may lead to an A-bar dependency. In §4.1. I return to this topic.

Also, since Future Aux is functional, allowing LHM out of its VP-complement, as in (15b), it disallows X<sup>max</sup>-Preposing, as in (19b) from Browne (1975), who mentions this point explicitly.

- (19) a. \*Čitam ću da knjigu      b. \*[Da čitam knjigu] ću

The locality of LHM can be observed in Passive constructions too. Example (20a) contrasts with (20b), showing LHM of the Passive Aux, or the X° heading the complement of the finite functional Aux *će*. This last pattern is parallel to the Old Spanish Passives with LHM in Lema and Rivero (1989a, 1990).

- (20) a. Kuća će biti prodana      b. Biće (=biti će) prodana  
 House will+3s be sold      "It will be sold"  
 "The house will be sold"

In brief, Serbo-Croatian LHM has the properties expected in view of previously studied LHM languages. It is a local process licensed by functional Auxiliaries; it is reserved for root contexts; it escapes the HMC, is subject to an ECP sensitive to Relativized Minimality via antecedent-government, and differs from VP-Preposing.

3.2. *The blocking effect of Negation on LHM.* In Serbo-Croatian, Negation is placed before the finite V in simple tenses, (21a), and the finite Aux in compound tenses, (22a), like in Italian-type languages, as seen in Spanish (21b-22b).

- (21) a. (Ja) ne čitam      b. (Yo) no leo  
 I not read+1s      "I do not read"
- (22) a. (Ja) nisam čitao      b. (Yo) no he leído  
 I not+have+1s read      "I have not read"

In view of this, it can be assumed that Serbo-Croatian Negation heads NegP (as first proposed for Japanese by Kitagawa 1986, and later by several others), and takes Tense as the complement it c-commands, also as in other Italian-type languages. Remember that I omit all mention of Agreement.

Serbo-Croatian is one of the languages where Neg blocks LHM, as in (23c). As a consequence, LHM patterns are affirmative, as seen in (14b-15b-16b), a point often noted in descriptions of this language.

- (23) a. Ja nisam čitao knjigu      c. \*Čitao nisam knjigu  
 b. Nisam čitao knjigu      "I have not read the book"

The proposal that Neg° as intervening head blocks the movement of V° to C°, while the functional Aux° alone obviously does not, accounts for the contrast in grammaticality between (14b) and (23c). However, if *ni* "not" is either the first item in the clause, or exempts the Aux *sam* from clitichood when blending with it, as the tradition maintains, LHM would not apply irrespective of the formal status of Neg°.

Therefore, to establish that Neg<sup>o</sup> has a blocking effect on LHM, as hypothesized, a different set of Serbo-Croatian patterns is required.

In Serbo-Croatian (and Slovenian), Clitics must appear in second position in the clause, as discussed in detail in Browne (1974, 1975), in contrast with Bulgarian. In both languages, Pronouns and Auxiliaries as Clitics cannot be first in the clause, and must be supported by an initial constituent. However, in Serbo-Croatian they must obligatorily "seek" a second position, as in (24). In (24a) the complex *ne vidim* is the first constituent, and *ga* "him" is in second position; in (24b) the pronominal Clitic follows the initial Adverb, and is not linearly adjacent to the finite V, and in (24c) the clitic *im* "to them" follows the first *wh*-phrase and precedes the second. Such phenomena are absent in Bulgarian.

- |  |   |
|--|---|
| (24) a. Ne vidim ga<br>Not see+1s him<br>"I do not see him"        | c. Koliko im ko daje?<br>How+much to+them who gives?<br>"Who gives how much to them?" |
| b. Sad ga ne vidim<br>Now him not see+1s<br>"Now I do not see him" | (Rudin 1988)  |

Thus, Bulgarian and Serbo-Croatian (and also Slovenian) Clitics are sensitive to different versions of Wackernagel's law. A similar dichotomy is found in Old Romance, where pronominal Clitics cannot be initial as the general case; in addition, in Old Portuguese and Spanish, they may (optionally) appear in the second position in the clause, away from V or Aux, in the phenomenon labelled Interpolation (and see Rivero 1986, 1990 for discussion). As a consequence, Serbo-Croatian patterns like Old Spanish and Portuguese, with (24b-c) parallel to Old Spanish (25) in the relevant respect; in (25) the Clitics follow the *wh*-phrase and precede the Negation.

- |   |  |
|---|--|
| (25) Por qué me lo non dices?<br>Why me it not say+2s | Calila p. 284<br>"Why don't you say it to me?" |
|---|--|

Serbo-Croatian pronominal Clitics may precede the Negation while still requiring the support of a first constituent in the clause, as shown in (22b). In the absence of an initial Adverb or a preverbal Subject, the required first constituent could in principle be the V° moved to C° through LHM. Such movement would cross Neg<sup>o</sup>, no longer a first constituent, in order to provide support for the otherwise initial Clitics. However, as I now show, in such a situation LHM produces an ungrammatical result, motivating the hypothesis that Neg<sup>o</sup> is a blocking intervening head in Italian-type languages.

To this effect, consider the word order variation between affirmative and negative versions of the Perfect with pronominal Clitics (Conditional and Future show similar alternations):

- |  |
|--|
| (26) a. Ja sam mu se predstavio<br>I have+1s to+him myself introduced<br>"I have introduced myself to him" |
|--|

- b. Ja mu se nisam predstavio  
 I to+him myself not+have introduced  
 "I have not introduced myself to him"
- c. \*ja sam mu se (nipredstavio/ne predstavio)

In the affirmative (26a), the Clitic complex *sam mu se* is in second position in the clause. In the negative version, the pronominal Clitics *mu se* precede the Negation *ni*; without proposing an analysis, this suggests that these Clitics cross Neg<sup>o</sup> to reach the second position in the clause. The crossing option is not available to the Aux, which "ceases" to be a Clitic according to the tradition, as the deviance of (26c) shows. In my view, such Aux is unable to cross Neg<sup>o</sup>, like other verbal-heads, and appears to incorporate into Neg<sup>o</sup>, an aspect I return to in §4.2.

The null subject version of (26a) involves LHM, as in (27a), but the LHM order in (27b), corresponding to (26b), is ungrammatical. In brief, while LHM can cross Auxiliaries and Clitics, it cannot cross the Negation, even when this item is not initial, and Clitics require a first constituent for support.

- (27) a. Predstavio sam mu se  
 Introduced have+1s to+him myself  
 "I have introduced myself to him"
- b. \*Predstavio mu se nisam

Slovenian should behave along the lines of Serbo-Croatian in this respect, because it combines (a) LHM, (b) the Italian-type Neg, and (c) second-position requirements on Clitics, as shown in the Perfect pattern cited in de Bray (1980), parallel to Serbo-Croatian (26b). However, I have not obtained the relevant data, and cannot establish the point.

- (28) Jàz ga níssem vídel  
 I him not-have+1s seen "I have not seen him"

In Old Spanish, Interpolation of Clitics across Negation combined with LHM is not documented either (Lema and Rivero 1990), and must have been ungrammatical.

In conclusion, in Italian-type languages, Neg<sup>o</sup> as intervening head blocks LHM of V<sup>o</sup> to C<sup>o</sup>, as already proposed in (Rivero 1988b).

#### 4. LHM and Negation in Slovak

This section examines the properties of English-type languages, those with Neg in a basic position which does not c-command Tense, in relation to LHM, as represented by Slovak (Czech is quite similar). Because this language is seldom discussed, the first part of this section is a detailed description of LHM, as it appears in the speech of my informant, a young adult speaker of the standard language (as spoken on TV), who left Czechoslovakia three years ago. In the second part I turn to Negation, and its interaction with LHM in relative detail too.

*4.1. Slovak LHM.* In Slovak, all the patterns or tenses involving LHM contain the Auxiliary *be/have*, which is used in the formation of the Perfect (=Past), the Conditional, and the Past Conditional, as we shall see. Grammars mention a Past

Perfect formed with this Aux too, but this tense is unknown to my informant, so it must be completely obsolete. The Slovak Perfective Future is a simple tense like the modern Romance Future: *napišem* "I will write".

The perfect (=Past) has the by now familiar properties of the parallel construction in all the Slavic and Balkan languages with LHM. As seen in (29b), V<sup>o</sup> fronts leaving object NP in situ, with VO-Preposing ungrammatical, (29c), as expected at this point.

- (29) a. Ja som      napísal list                      b. Napísal som list  
       I have+1s written letter                    c. \*[Napísal list] som  
       "I wrote the letter"

Pattern (30) shows the usual variation in word order between root and non-root clauses. In the matrix, LHM has placed *spytal* "asked" in the vacant C<sup>o</sup>, preceding the Aux *sa* "he has"; in the embedded clause, the order is Complementizer +Aux+ V+ NP, since V<sup>o</sup> *napisal* "written" remains in situ.

- (30) Spytal som sa či      si                      napísal list  
       Asked have-1s Refl if have-2s written letter  
       "I asked if you wrote the letter"

The Conditional and Past Conditional show LHM, but syntactically differ in interesting ways from corresponding tenses in other LHM languages, including Czech, which is otherwise quite close to Slovak.

The Slovak Conditional is a Present Perfect preceded by the invariable *by* glossed COND, as in (31). In contrast, the Serbo-Croatian Conditional, as in (16), is formed by a special functional/LHM Aux, showing Person/Number, which is also true in Rumanian and Old Romance.

- (31) Ja by            som      napísal list  
       I    COND have+1s written letter  
       "I would write the letter"

The Slovak Past Conditional shows the same invariable *by* followed by the Present *have/be*, a Past Participle of this same Aux, and a Past Participle of the main V, as in (32).

- (32) Ja by            som      bol                      napísal list  
       I    COND have+1s have+Participle written letter  
       "I would have written the letter"

In LHM within these two Conditionals, the head of the complement of the finite Aux moves, namely the main V *napisal* in the structure corresponding to (31), (33a), and the Auxiliary Participle *bol* in the structure corresponding to (32), that is, (33b). Thus the presence of *by* is immaterial, or, in traditional terms, this item is also a clitic, or does not exempt *som* from clitic hood. The word orders in (33) are the only grammatical options, as VP-Preposing is excluded, and *napisal* in (32-33b) cannot be fronted alone. As in other Slavic languages, Participles agree in Gender and

Number with subjects, so in (33) *napísal* and *bol* are Masculine and Singular; however, as stated previously for Bulgarian, this Agreement relation does not extend the LHM chain, which must stop with the complement of the tensed Aux.

- (33) a. *Napísal by som list*  
 Written COND have+1s letter  
 "I would write the letter"
- b. *Bol by som napísal list*  
 Have+Participle COND have+1s written letter  
 "I would have written the letter"

The above two patterns raise two important contrastive issues for the typology of LHM.

On the one hand, if we abstract from the presence of *by*, Slovak exhibits the same LHM locality conditions as Bulgarian or Serbo-Croatian, since (33b) is parallel to the Bulgarian Renarrated Mood in (7a-b), with the item immediately to the right of the finite Aux moving, or to the Serbo-Croatian Passive in (20b), with similar characteristics. So the question is why Slovak *by* is immaterial for LHM, being bypassed and not computed in the movement chain.

On the other hand, when *by* is taken into consideration, Slovak differs clearly from Bulgarian and Rumanian, which disallow LHM in apparently identical configurations.

To this effect, consider the Bulgarian Future Perfect in (34a). It is formed with the invariable Future particle *šte* glossed FUT, followed by the Present Perfect Auxiliary *sŭm* "I have", and the main V *pročel* "read" as Participle; thus this Bulgarian Tense appears structurally parallel to the Slovak Conditional in (31), formed by an invariable Particle, Present Aux and Past Participle too. However, the Bulgarian Future Perfect cannot undergo LHM, in contrast with the Slovak Conditional, so (34b) is the grammatical null subject version, and (34b) with LHM is deviant.

- (34) a. *Az šte sŭm pročel knigata*    b. *Šte sŭm pročel knigata*  
 I FUT have+1s read book+the    c. *\*Pročel šte sŭm knigata*  
 "I will have read the book"    "(I) will have read the book"

Therefore, what is the difference between Bulgarian *šte* and Slovak *by*? The traditional explanation is that Bulgarian *šte* is a non-clitic providing support for *sŭm* while Slovak *by* is itself a clitic requiring support. However, can that idea be maintained in view of the Bulgarian Past Perfect, or the Rumanian situation?

First, the Bulgarian Past Perfect Aux, such as *bjax* "I had" in (35a), is not clitic-like and may stand in initial position. However, it allows LHM too, as in (35b). Thus, there is an important formal distinction between the non-clitic *šte* and non-clitics like *bjax* which traditional approaches fail to capture: namely, the first is opaque to LHM while the second is not.

- (35) a. *Bjax pročel knigata*    b. *Pročel bjax knigata*  
 Had+1s read book+the    "I had read the book" (=35a-b)

Second, consider the Rumanian Past Subjunctive, when used in root environments, as in (36a). Like the Bulgarian Future Perfect and the Slovak Conditional, it is formed by an invariable Particle, *să*, an Auxiliary, *fi*, and the main V as participle. As shown in (36b), this structure is parallel to the Bulgarian one and unlike the Slovak patterns in disallowing LHM, as pointed out in Rivero (1988b).

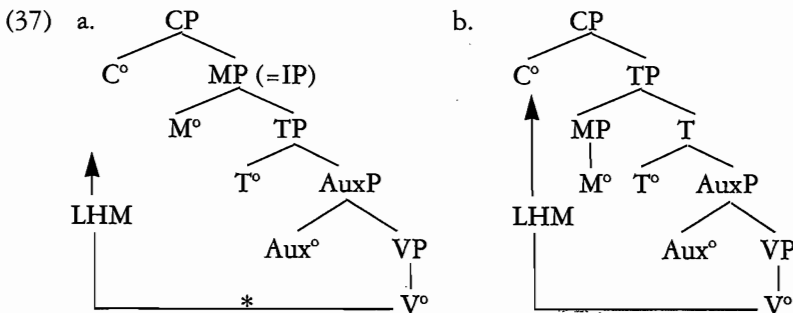
- (36) a. *Să fi adunat el atîția bani?*      b. \**Adunat să fi el atîția bani?*  
 SUBJ has collected he so+much money? (Mallinson 1986: 291)  
 "Could he really have collected so much money?"

Rumanian LHM is similar to English Subject-Aux Inversion in being restricted to questions and exclamations, therefore, it does not apply to create a Wackernagel effect for Auxiliaries or Pronominal Clitics, which can stand in initial position with no problems. Thus, the blocking effect of *să* must receive a different account.

At this point, it could be proposed that Balkan particles are A-bar heads for Relativized Minimality, as in Roberts (1990), or for the formation of a movement chain for Condition C of the Binding Theory, as in Li (1990), while Slovak *by* is an A-head. However, this move is as taxonomic as the Slavic traditional approach listing items which count as Clitics and those which do not.

Instead, I propose that the contrast follows from the different structural treatment of modal-like invariable particles in the Balkans vs Slovak: Head in the first case, and Specifier in the second.

On the one hand, Balkan Particles function as heads of a Modal Phrase taking Tense as complement (Rivero 1988b), as in (37a), where MP corresponds to IP in this early paper. They cannot be bypassed in LHM because as tenseless c-commanding items, they project a barrier. To use Roberts's terminology (1990), the Balkan M° is an A-bar head parallel in its effect to Neg° in the first group of LHM languages. On the other hand, Slovak *by* is the Specifier of Tense, corresponding to M° in (37b), and does not intervene in the movement path of LHM.



In (37a) and (37b), the functional Aux° amalgamates with T°, however, V° is able to cross this complex to reach C° only in the second case. Under this hypothesis, Slovak LHM has the familiar local properties of other languages, in that the

movement chain includes a tensed Aux, and no other c-commanding intervening item.

Finally, I suggest that the factor behind the difference between Slovak and the Balkan languages is COMP-INFL Agreement, as discussed in Rivero (1988a, 1989a). First, Balkan particles satisfy, directly or indirectly, subcategorization and selection properties of matrix Vs, as they encode the Indicative/Subjunctive distinction seen in Balkan Complementizers too, when overt. Second, as heads of MP=IP, Balkan particles make the finite clauses they introduce non-islands accessible to processes reserved for Infinitives in most European languages, such as Control or Raising. The Slovak particle does not play such head-roles.

With this analysis as background, in §4.2 I first consider the location of Negation in Slovak, and then how Neg interacts with LHM.

4.2. *Negation in Slovak.* When considering the position of sentential Negation in Slovak, two situations must be distinguished. On the one hand, in simple tenses, as in the Present in (38) and the Future in (39), *ne* “not” precedes the verbal complex, similar to Italian, Spanish, and the first group of LHM languages, but unlike English.

- (38) a. Volá “He calls, he is calling”  
 b. Nevolá “He does not call, he is not calling”
- (39) a. Napíšem “I will write” b. Nenapíšem “I will not write”

On the other hand, in compound tenses, Negation follows the finite Aux, similar to English, and unlike Spanish, Italian, and the first group of LHM languages. In this respect, the Slovak Perfect (=Past) in (40a) is equivalent to its English gloss, and the Slovak Conditional in (40b) is also equivalent to this English Perfect, given the previous analysis of the Modal particle *by*. Also, the Slovak Past Conditional in (40c) has the Negation in the same relative position as English *I have not been reading*, with *by* as the equivalent of the (putative) Specifier of English *have*. Notice that the tradition is to write *ne* and the following item as one word, a spelling convention with a linguistic motivation in view of the analysis I propose. The affirmative patterns corresponding to (40a-c) are (29a), (31), and (32) respectively.

- (40) a. Ja som nenapísal  
 I have+1s not+written “I have not written”  
 b. Ja by som nenapísal  
 I COND have+1s not+written “I would not write”  
 c. Ja by som nebol napísal  
 I COND have+1s not+had written “I would not have written”

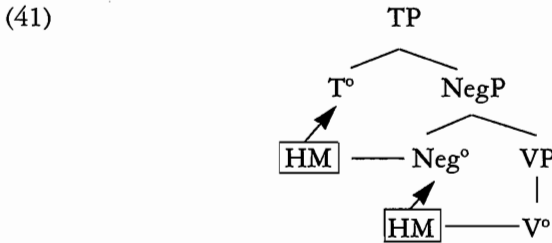
To account for (a) the above distribution, and (b) the properties of Negation under LHM discussed later, in a unitary way, I assume that Slovak Neg is the head of NegP, similar to Neg in Italian-type languages; however, Slovak NegP is the syntactic complement of the Tense/Aspect complex, rather than taking TP as



complement, in contrast with Neg in the Italian-type language. In addition, Slovak Neg as head is an affix, that is, a prefix, so the head of its complement incorporates into it, forming an X°-complex available for further Head-movement, be it short or long, as we shall see.

The analysis I propose for Slovak has many points of contact with Ouhalla's (1990) treatment of English Neg (and see Zanuttini 1989 too). However, other than the strict locality of Head-movement for V°/Aux° Ouhalla adopts and I abandon in view of LHM, I assume that in the English-type language, Neg is selected by Tense/Aspect but need not select VP, contra Ouhalla. Thus, Neg follows the Aspectual Aux, but may precede subsequent Auxiliaries, as in (40c), or the English Perfect with Progressive (*I have not been reading the book*).

Within the above tenets, the simple tenses in (38b-39b) have the basic structure in (41), omitting all mention of Agr(eement)(s), as before.

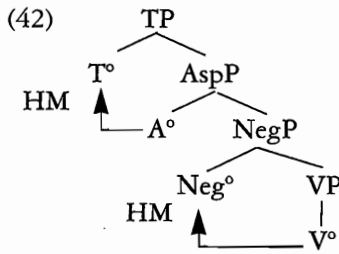
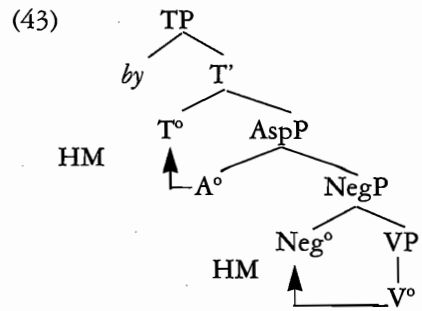


*Slovak Negative Simple Tense*

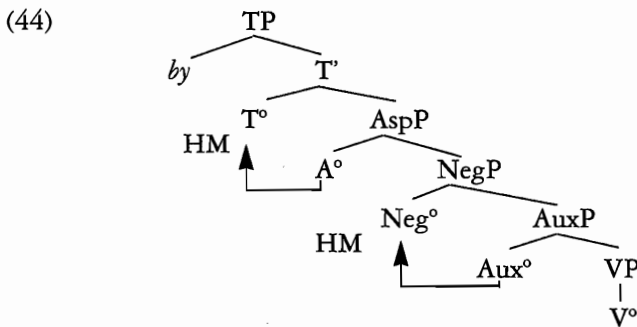
In (41), V incorporates into Neg, a prefix, and the complex raises to T, a suffix, so the forms in (38b-39b) result from two successive applications of short Head-movement. Because Neg triggers Incorporation, the negative Slovak simple tense is apparently identical to a negated simple tense in Italian-type languages, such as Serbo-Croatian *Ne vidim* "I do not see", but in the last case the hypothesis is that Neg is higher in the tree, and remains in situ throughout the derivation.

For the compound tenses in (40), I locate NegP below the Aspectual Aux treated as a projection distinct from Tense, as in (42-44). However, it could also be that T is headed either by an affix, as in (38-9), or by a stem with a strictly temporal value (=Past), with (38-9) and (40) having parallel basic structures. In this respect, it is perhaps significant that the rich aspectual distinctions of Slavic are often encoded in verbal prefixes, and that the Slavic Auxiliaries of the *have/be*-type are temporal, rather than strictly aspectual, markers.

The Perfect in (40a) corresponds to (42). The Aspectual Aux raises to T, and the main V incorporates into Neg, which is the complement of Aspect. Because a two-word sequence is formed, rather than a complex word as in simple tenses, the basic site of the Negation is apparent, and similar to English. The Conditional in (40b) has a similar derivation, with the addition of the Modal marker *by* as Specifier of Tense, (43).

*Slovak Negative Perfect**Slovak Negative Conditional*

Finally, the Past Conditional in (40c) is as in (44). TP includes the Specifier *by*. Neg is the complement of the Aspectual Aux and takes as complement another Aux, followed by the main VP. The Aspectual Aux raises to T, and the following Aux incorporates into Neg. Again, these processes are familiar instances of short Head-movement.

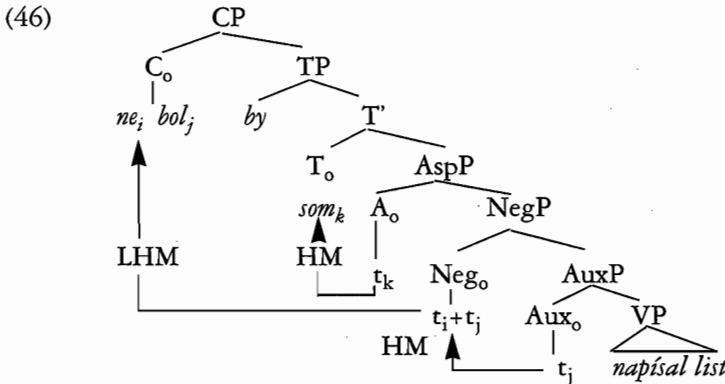
*Slovak Negative Past Conditional*

The application of LHM to negative patterns confirms the proposed analysis from an additional point of view.

In each case, Neg° and the non-finite incorporated X° originating as the head of the complement of NegP form the head-complex which undergoes LHM to C°. Thus, the Null Subject versions of the patterns in (40a-b-c) are (13), repeated as (45a) for ease of exposition, and (45b-c) respectively, as the only grammatical word order options. In the Perfect (45a), Neg and main V undergo LHM, and the same is true in the Conditional in (45b), in the presence of the Specifier *by*, which fails to intervene in the relevant sense, as stated. In the Past Conditional in (45c), Neg and the first Aux *bol* following the Aspectual head form the X° fronted by LHM, again across the Aux° which raises to T°, but not across the Specifier *by*, in the relevant sense. The derivation proposed for (45c) is given in (46).

- (45) a. *Nenapísal som list*  
 Not+written have+1s letter  
 "I have not written the letter" or "I did not write the letter"

- b. *Nenapísal* by som list  
Not+written COND have+1s letter  
"I would not write the letter"
- c. *Nebol* by som napísal list  
Not+had COND have+1s written letter  
"I would not have written the letter"



The patterns in (45-6) combined with the previous word order phenomena in simple and compound tenses with no LHM justify the claim that Negation is a head, and complements the tensed functional Aux (or, Aspect, in the proposed treatment), as this is the only X<sup>o</sup> that can be bypassed in LHM.

Furthermore, Incorporation into Neg, with subsequent LHM of the complex to C<sup>o</sup>, as in (45-6), motivates the hypothesis that the item following Neg functions as the head of a complement too, and not, for instance, as the Specifier of the main VP. In particular, under this approach, *bol* in (45c-6) must be an intermediate Aux<sup>o</sup> heading a maximal projection taking the VP headed by *napísal* as main V; thus, *bol* as head incorporates into the c-commanding Neg, and the complex is moved to C, giving the observed word order.

Thus, Slovak Incorporation of Aux<sup>o</sup> into Neg<sup>o</sup>, and the Old Romance Incorporation of V<sup>o</sup>/Aux<sup>o</sup> into a functional Aux<sup>o</sup>, forming synthetic Futures (Lema 1989, Lema and Rivero 1990), as in (11), are different facets which show that in LHM languages Auxiliaries are not Specifiers, unlike the Conditional marker *by* in Slovak, but head maximal projections which take AuxP or VP as their own complements.

Before concluding, an additional question must be answered in relation to Italian-type languages and LHM. In these languages, Neg c-commands Tense and the functional Aux is transparent to LHM. Thus, in view of the incorporation into Neg just seen in the English-type language, a possible derivation for LHM with Neg in Italian-type languages is as follows, but must be excluded: (a) the X<sup>o</sup> complementing the functional Aux<sup>o</sup> bypasses this category by LHM, (b) incorporates into Neg<sup>o</sup> as c-commanding head, and (c) subsequently, the head-complex thus formed moves to C<sup>o</sup>. Under this type of derivation, where Neg<sup>o</sup> is not bypassed by another X<sup>o</sup>, LHM in a negative Perfect Tense gives identical outputs in Italian and

English-type languages: namely, deviant Bulgarian (12d) in the first case (i.e. \**Ne pročel sŕm knjigata*), and grammatical Slovak (13=45a) in the second.

I suggest that the outlined option is not available in the Italian-type LHM language, not because Neg is intrinsically different in the two groups, but because the functional Aux<sup>o</sup> itself incorporates into the c-commanding Neg<sup>o</sup>, precluding the LHM Incorporation of the X<sup>o</sup> heading its complement. In brief, in both types of languages Neg may function as incorporating head.

In §3.2, I presented Serbo-Croatian phenomena which motivate this view. First, notice that Serbo-Croatian Neg undergoes phonological changes (*ni* rather than *ne*) when preceding the functional Aux, as in (22a), with the spelling tradition taking Neg and Aux as one word, much like the Slovak tradition treats Neg and the following item as one word too, even though the relative position of Neg is quite different. So Neg and Aux form a unit.

More importantly, while pronominal Clitics seek the second position in the clause, as in (26b), and bypass Neg, the functional Aux remains attached to it. In the absence of Neg, the Aux is like another Clitic, as in (47), where *je* “has” has moved to a position between the two wh-phrases, which Rudin (1988) suggests is adjunction to IP.

- (47) Ko je ŕto kome dao? (Rudin 1988: 462)  
 Who has what to+whom given? “Who gave what to whom?”

Thus, the fact the Aux does not bypass Neg (parallel to other verbal heads), while pronominal Clitics do, the phonological factors, and the impossibility to have LHM in patterns parallel to (12d) support the idea that the functional Aux<sup>o</sup> incorporates into Neg<sup>o</sup>.

Finally, it is a general property of Italian-type languages that in Subject-Verb inversion patterns, the finite Aux or V is preceded by Neg, as in Spanish *No estŕ Juan cantando?* “Isn’t John singing?”. If such order is the result of movement to C<sup>o</sup>, the patterns suggests Incorporation of the finite V/Aux to Neg<sup>o</sup> too, with subsequent movement of the complex to C<sup>o</sup>. In Italian-type LHM languages, this solution accounts for the observed LHM properties at the same time, while analyzing Neg simply as Clitic, a common idea, does not.

## 5. Summary and Conclusions

Long Head Movement is the process which raises an X<sup>o</sup> —Aux or V— to C<sup>o</sup>, bypassing an intervening tensed functional Aux<sup>o</sup> which does not interrupt the Head-movement chain. Because the landing site of LHM is C<sup>o</sup>, LHM constructions, which are common in Balkan and Southern Slavic languages and existed in Old Romance, share the characteristics of V-second patterns in Germanic. Although this movement has been considered impossible because it is not documented in Germanic, LHM complies with the ECP subject to Relativized Minimality as applied to X<sup>o</sup>-movement. All LHM languages fulfill identical ECP locality requirements, even though they may differ in specific characteristics for LHM constructions, as shown

for the contrasts due to the different role of Inflectional Particles between Slovak and Balkan languages in §4.1.

LHM can never bypass Negation, because Neg functions as an intervening head within its own maximal projection and blocks the formation of the required X<sup>o</sup>-chain, leading to an ECP violation, as shown by the properties of Serbo-Croatian in §3.

Nevertheless, LHM languages fall into two different types as to the interaction between Head-Movement and Neg.

On the one hand, in languages where Neg c-commands Tense and the functional Aux, or the Italian-type, negative LHM patterns are ungrammatical. LHM does not coexist with Neg because this item can never be crossed, and is not available for LHM Incorporation, since the functional Aux<sup>o</sup> incorporates into Neg<sup>o</sup> instead (i.e. short Head-Movement), as discussed in §4.2 in view of Serbo-Croatian. LHM Italian-type languages are numerous, including the major Old Romance languages with the exception of Old French, Bulgarian, Serbo-Croatian, Slovenian, Rumanian (and probably Albanian).

In languages where Tense and the functional Aux c-command Neg, or the less frequent English-type, Neg<sup>o</sup> undergoes LHM to C<sup>o</sup> together with the X<sup>o</sup> which incorporates into it, as seen for Slovak in §4.2. English-type LHM languages are less numerous, including Czech and Slovak.

## References

- Baker, M. C., 1985, *Incorporation*. Unpublished MIT Dissertation, Cambridge, Mass.
- , 1988, *Incorporation*. Chicago. Chicago University Press.
- , and K. Hale, 1990, "Relativized Minimality and Pronoun Incorporation", *LI* 21. 289-297.
- Browne, W., 1974, "On the Problem of Enclitic Placement in Serbo-Croatian". In *Slavic Transformational Syntax*, 36-52, ed. by R. D. Brecht and C. V. Chvany. Michigan Slavic Materials 10. Ann Arbor, Michigan.
- , 1975, "Serbo-Croatian for English-speaking learners". *Kontrastiva analiza engleskog i hrvatskog ili srpskog jezika*. Zagreb. Institut za lingvistik i Filozofskog faculteta.
- Chomsky, N., 1986, *Barriers*. Cambridge, Mass. MIT Press.
- , 1988, "Some Notes on Economy of Derivation and Representation". Ms. MIT. Cambridge, Mass [Reproduced in this volume].
- de Bray, R.G.A., 1980, *Guide to the Slavonic Languages*. Columbus, Ohio. Slavica.
- Iatridou, S., 1990, "About AgrP", *LI* 21. 551-577.
- Kitagawa, Y., 1986, *Subjects in Japanese and English*. Unpublished Doctoral Dissertation, University of Massachusetts, Amherst, Mass.
- Lema, J., 1989, "Morphologization of the Spanish Future and Conditional: Synchrony and Diachrony". Ms. University of Ottawa, Ottawa.
- , M. L. Rivero, 1989a, "Inverted Conjugations and Verb-second Effects in Romance". To appear in *Theoretical Analyses in Contemporary Romance Linguistics*, ed. by C. Laeufer and T. Morgan. Amsterdam. Benjamins.
- , and ———, 1989b, "Long Head Movements: ECP vs. HMC". *Proceedings of NELS*, 20. 333-347. GSLA. University of Massachusetts. Amherst, Mass.
- , and ———, 1990, "Types of Verbal Movement in Old Spanish: Modals, Futures, and Perfects". Ms. University of Ottawa, Ottawa. To appear in *Probus*.

- Li, U., 1990, "X°-Binding and Verb Incorporation", *LI* 21. 399-426.
- Mallinson, G., 1986, *Rumanian*. London. Croom Helm.
- Ouhalla, J., 1988, *The Syntax of Head Movement. A Study of Berber*. Unpublished Doctoral Dissertation. School of Oriental Studies. London.
- , 1990, "Sentential Negation, Relativised Minimality, and the Aspectual Status of Auxiliaries", *The Linguistic Review* 7. 183-231.
- Pollock, J. Y., 1989, "Verb Movement, Universal Grammar, and the Structure of IP", *LI* 20. 365-424.
- Rivero, M. L., 1986, "Parameters in the Typology of Clitics in Romance and Old Spanish", *Lg* 64. 774-807.
- , 1988a, "Barriers and the Null Subject Parameter in Modern Greek". *Proceedings of NELS 18*. 412-425 GLSA. University of Massachusetts. Amherst, Mass.
- , 1988b, "The Structure of IP and V-movement in the Languages of the Balkans". Ms. University of Ottawa, Ottawa.
- , 1989a, "Barriers and Rumanian". In *Studies in Romance Linguistics*, 271-294, ed. by C. Kirschner and J. DeCesaris. Benjamins, Amsterdam.
- , 1989b, "Estructura flexional y movimiento(s) de verbo: Futuros, condicionales y perfectos en rumano y español medieval". To appear in the *Proceedings of the 19th International Congress of Romance Linguistics and Philology*. Santiago de Compostela.
- , 1990, "Clitic and NP Climbing in Old Spanish". To appear in *Current Studies in Spanish Linguistics*, ed. by H. Campos and F. Martínez Gil. Washington, D.C., Georgetown University Press.
- Rizzi, L., 1989, *Relativized Minimality*. Cambridge, Mass. MIT Press.
- Roberts, I., 1990, *Verbs and Diachronic Syntax*. Forthcoming in Kluwer, Dordrecht.
- Ross, J. R., 1983, "Inner Islands". *Proceedings of the Berkeley Linguistic Society* 10. 258-265.
- Rudin, C., 1988, "On Multiple Questions and Multiple Wh-fronting", *NLLT* 6. 445-501.
- Travis L., 1984, *Parameters and Effects of Word Order Variation*. Unpublished MIT Dissertation. Cambridge, Mass.
- Webelhuth, G., 1985, "German is Configurational", *The Linguistic Review* 4. 203-246.
- Zanuttini, R., 1989, "Two Types of Negative Markers". In *Proceedings of NELS 20*. GLSA. University of Massachusetts. Amherst, Mass.