LONG HEAD MOVEMENT AND NEGATION: SERBO-CROATIAN VS. SLOVAK AND CZECH

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1. INTRODUCTION *

A well-known language type is the V-second (=V2) class of Germanic. In V2, a finite Verb/Aux differs in distribution in main or main-like vs. subordinate clauses, as (1) from van Kemenade and Hulk (1990).

(1) a. Hans heeft gisteren het boek aan de man gegeven.  
Hans has yesterday the book to the man given  
'Hans gave the book to the man yesterday.' (Dutch)

b. ...dat Hans het boek gisteren aan de man heeft gegeven.  
'... that Hans gave the book to the man yesterday.'

By contrast, in the less known syntactic type topic of this paper, or the Long Head Movement (= LHM) class of Southern and Western Slavic, the Balkans, and Old Romance, non-finite Verbs (or Aux too, as seen later) may have different distributions in main and subordinate clauses, as in (2) with the matrix V spytal 'asked' preceding the finite Aux som '(I) have', and the opposite order in the complement clause: si napísal '(you) have written'.

(2) Spytal som sa ci si napísal list.  
asked have+1SG REFL if have+2SG written letter  
'I asked if you wrote the letter.' (Slovak)

Following den Besten (1977), in GB, Germanic V2 is often seen as the result of two movements (Haider and Prinzhorn 1986): (a) the finite X₀ moves to C₀, and (b) a Xmax preposes to the SpecCP. In non-root clauses, the Complementizer prevents the first movement, as in (1b).

If the non-finite V₀ in (2) head-moves to C₀ when it precedes the finite Aux, the Complementizer will have the same effect as in V2 ((Rivero 1988b:sect. 3, 1989b; Lema and Rivero 1989a-b) for justification).

However, there are two important differences between Germanic V2 in (1a) and Balkan/Old Romance/Slavic LHM, as in (2). First, in Germanic, the V₀ or Aux₀ moving to C₀ does not cross over an intervening Aux₀, while in Balkan/Old Romance/Slavic patterns it does; in this sense, the Germanic fronting is 'short', or Short Head Movement, while the other one is not, or Long Head Movement. So, under the outlined treatments, a first difference is that the verbal item which is fronted in V2 and LHM contrasts, while the assumed landing site is identical. Second, Germanic finite-raising must combine with the preposing of another constituent to the SpecCP, except in contexts such as Yes-no questions. As discussed in (Rivero 1991:sect.1.2), LHM fails to combine with preposing(s)
to the SpecCP, due to the Principle of Economy of Derivation (Chomsky 1989), which makes LHM appear in only a subset of the root contexts of Germanic V2. Thus, while Germanic patterns are usually finite-V second, as in (1a), Slavic ones are non-finite V first, as in (2); however, within the proposed analyses both are restricted to root environments because an X0 moves to C0.

The main topic of this paper is the interaction of the Long Head Movement shown in (2) and Negation. Section 2 summarizes the core properties of LHM established in earlier research (Rivero 1988b:sect.3; Lema and Rivero 1989a-b in particular), ties some loose ends, and shows that LHM is X0-movement to C0, and not (a) VP-Preposing or movement to the SpecCP, (b) (Participle) Stylistic Fronting to the SpecIP, (c) adjunction of VO to IP, nor (d) Short Head Movement. Section 3 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 4 outlines properties of the first group, considering specific characteristics of Serbo-Croatian, and sections 5 and 6 study how the second group differs from the first, in view of the properties of Slovak LHM, and its points of contact with Czech. 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 exclusively (Rivero 1988b:sect.3 for Rumanian; Lema and Rivero 1989a:sect.1.3, adding Portuguese and Old Spanish; Lema and Rivero 1989b:sect.2.2, adding Bulgarian).

2. LONG HEAD MOVEMENT: AN OVERVIEW

2.1. VP-Preposing vs. Head-Movement

The recent GB literature distinguishes two types of verbal frontings: (a) Xmax-movement or VP-Preposing, which extracts a main V with its complements, as in (3), and (b) X0-movement, fronting VO/Aux0 to C0 in isolation, as in (1a) and (4). In view of (Chomsky1986), these extractions should represent the two options allowed by UG. Namely, maximal projections or their heads move, but not intermediate projections (but see (van Riemsdijk 1989)).

(3) Mary has to read the book, and [read the book] she will.

(4) Are you reading the book?

The two processes contrast in locality effects. On the one hand, VP-Preposing moves the Xmax containing the V with Thematic structure, crossing a sequence of Auxiliaries, with an unbounded effect, as in English (5a) and German (5b) ((Zagona 1989) for recent discussion). Also, VP-Preposing escapes Inner Island effects (Ross 1983) like Theta-governed complements (Rizzi 1989), as in (6); cases (6a-b) are extractions from Wh-islands, (6c) from both a Factive and a Negative Island, and (6d) from an Extraposition Island with Negation.

(5) a. Mary had to read the book, and [read the book] she may have.
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b. [Einen Kuchen backen] wird er doch wohl koennen.  
a cake bake will he presumably can (German)  
'Presumably, he can bake a cake.'  
(Webelhuth 1985)

(6) a. [Fix the car], I wonder whether he will.  
(Chomsky 1986:19)  
b. [Leer el libro] me pregunto cuándo podrá.  
read the book me wonders when will+be+able  
'I wonder when he will be able to read the book.' (Spanish)  
c. [Leer el libro] siento no haber podido.  
read the book regret not have been+able  
'I regret that I have been unable to read the book.'  
d. [Leer el libro] no ha debido sin duda poder.  
Read the book not has must undoubtedly be+able  
'Undoubtedly, he must have been unable to read the book.'

On the other hand, Head movement has been considered strictly local, in the sense exemplified by Germanic, so sensitive to Islands. For instance, since only the first AuxO raises to Tense/Agr in English, it must be the only item available for the subsequent movement to CO. Thus, raising a second AuxO to CO, as in (7b), or the main V0 across AuxO, as in (7c), leads to (violent) ungrammaticality:

(7) a. Has he been fixing the car?  
b. *Been he has fixing the car?  
c. *Fixed he has the car?

The locality of Head movement in (7) is attributed to the Head Movement Constraint (HMC) (Travis 1984), making an X0 move into the Y0 properly governing it, or one step only. For Baker (1985, 1988) and Chomsky (1986), the HMC is not independent, but derives from the Empty Category Principle (ECP).

The properties of Head movement of V0/AuxO in Western and Southern Slavic, Balkan, and Old Romance languages differ from those of Germanic in important ways. To this effect, consider a well-known aspect of Slavic word order resulting from X0-raising. First, in Bulgarian Perfect patterns with an initial constituent such as a Subject, the order is as in (8a), 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 (8b), with (italicized) V preceding Aux, in contrast with the deviant English (7c): V Aux NP2; this is the order with postverbal Subjects too, as in (8c). The order Aux V NP2 is ungrammatical, (8d), in contrast with the Spanish null subject option, Ha leído el libro. Also, regardless of the presence/absence of NP1, fronting of V and NP2 is disallowed, as shown in (8e-f), identical to Spanish *[Leído el libro] Pedro ha and *[Leído el libro] ha in this particular respect.

(8) a. Petur e procel knigata.  
Peter has read book+the  
'Peter has read the book.' (Bulgarian)  
b. Procel e knigata.  
read has book+the  
'He has read the book.'
c. Procel e knigata Petur/ Procel e Petur knigata.
e. *E procel knigata.
f. *(Procel knigata) Petur e.
e. *(Procel knigata) e.

Traditional Slavic approaches to word orders like (8b) are related to Wackernagel effects, with attention focusing on the Aux as Clitic: it cannot be initial, so a constituent must precede it. Here I concentrate on the process moving the non-finite V, a topic which has not concerned traditional Slavists. This Bulgarian pattern is for root environments, much like Germanic (1a), and, in view of (8f), does not result from VP-Preposing (i.e. it is not movement to the SpecCP). Instead, the V⁰ procel moves to C⁰ bypassing the intermediate finite Aux e in I⁰, as an instance of LHM. Under this view, the movement in (8b) is parallel to Germanic V⁰-raising both in typology and landing site, and unlike VP-Preposing (Lema and Rivero 1989a:sect.2; 1989b:sect. 2.3, sect. 2.4; 1990:sect.1).

2.2. Long Head Movement vs. Stylistic Fronting

LHM differs not only from VP-Preposing but from Stylistic Fronting, which moves a Participle perhaps to the SpecIP in Icelandic Perfects (Maling 1980; Platzack 1987; Sigurdsson 1989; among others), and possibly Old Spanish Perfects. In contrast with LHM but not VP-Preposing, Stylistic Fronting applies in non-root contexts such as restrictive relatives. In Old Spanish, LHM, Stylistic Fronting, and VP-Preposing coexist, with several formal differences, if Lema and Rivero (1990:sect.3) are correct.

2.3. Long Head Movement vs. Adjunction to IP

In earlier work it was not shown that LHM cannot be adjunction to a projection of I, or the highest functional head complementing CP, so I will now contrast the properties of constructions arising from the two processes.

Consider Kayne's recent proposals (1989) for Romance Infinitive + Clitic, as in Spanish [Leerlo] es importante '[To read it] is important'. Kayne assumes that non-finite leer 'read' is an X⁰ adjoined to IP, while clitic lo 'it' is adjoined to (an abstract) I⁰. On the one hand, there are reasons not to extend this analysis to Slavic (2), with the non-finite head spytal adjoined to IP and the finite complex som in I⁰; likewise, the Old Spanish LHM construction in (9a), which contains an (italicized) Infinitive + Clitic sequence, does not result from Infinitive-adjunction to IP, but from movement to C⁰. On the other hand, the (italicized) Infinitive + Clitic sequence which ends (9b) is likely to be amenable to Kayne's analysis, as its properties are not those of LHM patterns. Let us see some differences between the two.

(9) a. Conoscer-le hedes esta vegada mejoría.  
    know-to+him will+2SG this time improvement 
    Zifar 200  
    'You will see in him some improvement this time.'(Old Spanish)

b. En vos querer poner en corazón de conocer vos Zifar 98 
    in to+you want put in heart of know- you 
    'Wanting to put in your heart (the wish) to know yourself'
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A first contrast is that (9a) as a LHM pattern is a root construction, much like (2), while the Infinitive+ Clitic sequence in (9b) is found in non-root clauses almost exclusively, which follows if LHM involves CO, and Kayne's Infinitive fronting does not, as proposed. Second, Infinitive + Clitic constructions can be negated: No leerlo es importante 'Not to read it is important' As mentioned above, in languages where Negation c-commands Tense, such as Bulgarian and Old Spanish, LHM constructions cannot be negated (and see sect. 3). Third, the few root contexts with Infinitive + Clitic orders in Romance allow Wh-movement, as in Por qué hacerlo? 'Why do it?'. However, full LHM does not combine with Wh-movement in Old Romance/Slavic (nor with other preposings within CP), due to Economy of Derivation (Rivero 1991:sect. 1.2). Thus, Slavic root Wh-questions have non-finite Vs in situ, as in Bulgarian (10a-b). In essence, the Wh-word in the SpecCP is the first constituent supporting the finite Aux (or the pronominal Clitic + Aux sequence in (10a)), making LHM redundant, so the shorter derivation with just Wh-movement is chosen, excluding (10b).

(10) a. Kakvo ti e kazal?
   'What has he told you?'(Bulgarian)
   b. *Kakvo kazal ti e?

Finally, Rumanian Infinitive constructions always show Clitic+Infinitive order, contrasting with LHM patterns with Infinitive + Clitic + Aux order instead, suggesting that this language lacks Infinitive Adjunction to IP, but has LHM. Bulgarian has no Infinitives.

2.4. Long Head Movement vs. Incorporation

In Old Romance, movement of the non-finite X0 to CO alternates with Incorporation of the X0 to the finite AuxO, under well defined syntactic conditions (Lema and Rivero 1989a-b, 1990), which leads to the conclusion that LHM cannot be Incorporation or Short Head Movement. For instance, in Old Spanish (11), the main V is initial as the result of LHM, with the (pronominal) Clitics, finite Aux, and phrasal complements following, like in Bulgarian. LHM locates dezir in CO, bypassing the Aux hedes in IO, so as to avoid having the Clitic lo as clause-initial item, that is, for the Wackernagel effect of present Southern and Western Slavic too. The option to raise hedes to CO is not attested (*Hedes lo dezir); this implies that the Aux cannot stand in initial position either, similar to present Slavic, as a reviewer points out.

(11) Dezir lo hedes al rey?
   'Will you say it to the king?' Zifar p. 124 (Old Spanish)

Medieval LHM contrasts in syntactic distribution with the Synthetic Futures in (12) 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 VO (dar-) into AuxO (-edes) (Lema 1989). For the contrasting syntax of Old Spanish LHM vs. Incorporation see (Lema and Rivero 1990).
Old Romance Incorporation, and the locality of LHM mentioned in sect.1.5 doubly motivate the claim that the LHM Aux is an intervening head, not the Specifier of the VP whose \( V^0 \) moves (Lema and Rivero 1989b: sect. 2.5). In particular, Incorporation as in (12) is Head-to-Head Movement (Baker 1985, 1988), not Head-to-Specifier raising (i.e. \( V^0 \) does not move to its own Spec); Slovak will motivate this aspect of LHM Aux further (sect.5). In Southern and Western Slavic, LHM does not alternate with Incorporation, which is absent. However, Polish seems to have optional Incorporation in Perfects/Pasts and (Indicative) Conditionals, and no LHM.

In conclusion, LHM displays the formal properties of Head-Movement to \( C^0 \), but fails to show those of VP-Preposing, Stylistic Fronting, and Head-adjunction to IP, which may result in apparently similar orders. Also, LHM is not Incorporation or short Head-movement to a finite Aux.

2.5. LHM and the ECP

LHM goes against the HMC, because the Aux\(^0\) in the movement path is skipped by \( V^0 \). In consequence, Lema and Rivero (1989a-b) conclude that this constraint is descriptively inadequate for \( V^0 \)-raising, the core case behind its motivation, and must be abandoned, joining voices doubting its viability on the basis of perhaps less clear cases (Chomsky 1989; Ouhalla 1988) (and see (Baker and Hale 1990) too).

Head-movement including LHM may escape the strict adjacency imposed by the HMC, but is subject to the locality required by the ECP, the essential condition. The nature of this locality can be shown by Slavic constructions with sequences of Auxiliaries, parallel to Romance (Lema and Rivero 1989b:sect. 2.3). To this effect, consider the Czech Past Conditional in (13a) formed by a finite Aux, a second Aux as Participle, and main V as Participle too; this construction is formally similar to a French Passé Surcomposé (\( I \) a \( eu \) \( lu \) 'He has had read'). In (13a) the Adverb is initial, counting as the first constituent making LHM redundant, so word order is similar to English I have been reading the book in the relevant sense. With no Adverb, unmarked word order is as in (13b), so the Aux after the finite one must front, and cannot remain in situ, (13c-d). Thus these patterns show that Head-movement is not as strictly local as required by the HMC, but it is still a short-range movement.

(13) a. Tehdy bych byl koupil knihy. 'Then I would have bought books.' (Czech)
b. Byl bych tým koupil knihy. 'I would have bought books.'
c. *Bych byl koupil knihy._
d. *Koupil bych byl knihy._

Different solutions have been sketched to satisfy the ECP in these LHM patterns. Rivero (1988b sect. 3) suggests that the moved item is the antecedent-governor and the finite item is the head-governor of the trace; the second is functional and does not block
government by the first in view of Relativized Minimality (Rizzi 1989). Instead, under Lema and Rivero’s perspective (1989a-b), the finite Aux in (13b) becomes a link in the chain of coindexation --through a Tense-marking procedure--, allowing the Aux byl in C0 to antecedent-govern its trace. Likewise, the V in C0 in (8b) antecedent-governs its trace in the VP, across the Aux e. Roberts proposes (1990:ch. 1) that the LHM finite Aux does not 'count' in a sense relevant for Relativized Minimality, because it forms an A0-complex, which an A0-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, as in Rivero (1988b:sect. 3) and Roberts (1990:ch. 1), rather than the Tense-Marking approach of (Lema and Rivero 1989a-b), as it appears that Relativized Minimality may accommodate the following cases where locality is less strict than in (13). However, I will not spouse a specific formulation of the factors blocking LHM, a topic requiring research beyond the scope of this paper, in view of the variation Slavic and Balkan languages exhibit in this area, as I show briefly.

For instance, Rivero (1989b:sect. 2.1.3) points out that Rumanian Perfect Conditionals seem to depart from the strict locality of LHM in (13) in that the (optional) fronting bypasses two items, the finite Aux and Perfect fi which follows it, as the literary example in (14) from Popescu, and modern (15) show.

(14) Zisu-i- as fi eu!
tell- him- would+1SG have I
'I would have told him!'(Sandfeld and Olsen 1936:364)

(15) a. I as fi spus,
him would+1SG have told
'I would have told him.' (Rumanian)
b. Spusu-i- as fi!
told- him-would+1SG have
'I would have told him!'
c. *Fi-i-as spus!

In view of LHM patterns in Czech, fi should front, but in fact it does not, as shown by (15c). Rivero (1989b) suggests that as fi forms a complex Aux. Another alternative is that fi is the Spec of the VP with spus as head. A third alternative is that both the finite Aux and Perfect fi are A-heads bypassed by the A-bar LHM at once, making Rumanian LHM local in the relevant sense, a problematic solution for the Tense-marking treatment.

For the Bulgarian emphatic renarrated Mood, as in (16a), M. Dimitrova Vulchanova finds that both (16b) and (16c) are possible outputs for LHM, while in (Lema and Rivero1989b) (16c) is considered ungrammatical. That (16c) shows LHM and not VP-Preposing, is seen by the contrast with (16d). So Bulgarian resembles Rumanian in locality effects, bypassing a non-finite be/have, while sharing the stricter Czech patterns too, a topic I leave for further research (and see sect. 5 for another type of apparent non-local raising in Slovak, and a solution).

(16) a. Az sum bil cetjal knigata. (Bulgarian)
   I have+1SG had read book+the
b. Bil sum cetjal knigata.
   had have+1SG read book+the
Finally, Tense seems to be essential for the formation of LHM chains, but Agreement appears irrelevant. For instance, Slavic Participles agree in Number and Gender with subjects, so in (13a-b) the finite Aux and the two Participles show (identical) Number (notice that this corresponds to the Subject Agr rather than the Object Agr of Chomsky (1989)). However, the presence of this shared feature has no effect on LHM, as the movement chain does not extend beyond the item which complements the finite Aux. In consequence, I omit mention of Agr and its location(s) in this paper ((Belletti 1990; Chomsky 1989; Iatridou 1990; Ouhalla 1990; Pollock 1989) for different positions on Agr; Roberts (1990: Ch. 1) assigns an essential role to (Subject) AgrP in LHM).

2.6. Functional Auxiliaries and LHM

In languages with VP-Preposing and LHM such as Rumanian, or Czech as seen later, Aux allowing LHM (a) are exclusively Aspectual/Temporal, that is functional like I₀ (and also C₀ and Det₀) - such as Perfect a 'he has' in (17a) -, and (b) disallow VP-Preposing, as in (17b).

(17) a. *Citit- a cartea!
    read has book+the!
    'He read the book!' (Rumanian)

    b. *[Citit cartea]   Maria nu   a.
    read book+the Mary not has

In contrast, a Modal like a putea 'can' allows VP/X<sub>max</sub>-Preposing, (18), and is lexical like V₀, due to its lexico-conceptual structure.

(18)  [Citi cartea] Maria nu poate.
      read book+the Mary not can
      'Read the book Mary cannot.' (Rumanian)

Thus, on the one hand a functional Aux₀ cannot contribute to the proper government of a X<sub>max</sub>-trace, (17b), but is a transparent head in the formation of the LHM chain, (17a); this property is found without exception in Aux allowing LHM in all languages with the process. On the other hand, a lexical Aux₀ has the opposite characteristics, and is parallel to a Theta-marking V₀ in relation to its complement and extraction properties (and see fn 3).

2.7. The LHM languages of Europe

LHM has been thought impossible in view of Germanic, but is very common in Bulgarian, Czech, Slovak, Slovenian, and Serbo-Croatian, and can be found in Albanian, and
Rumanian. In my view, these languages show the core properties of LHM outlined above, and also interesting parametric variations, in view of non-shared characteristics, such as the ones discussed later for Slovak and Serbo-Croatian LHM in relation to Negation. In Old Romance, LHM is documented in all major languages, including 19th century European Portuguese, but excluding Old French given its Germanic V2 characteristics (Rivero 1991: sect. 3.1). Thus LHM seems to have enjoyed a wider geographical distribution than V2, affecting more language families too. So, in view of its widespread geographic distribution, it is tempting to visualize medieval European 'V-second phenomena' within a North-South dichotomy, leading to two distinct and non-overlapping groups of languages, surviving up to the present in several cases. In root environments, Northern languages, including Old French, show Germanic Short Head-movement, with the non-finite V or Aux in C0 (and another item often in the SpecCP). In this same environment, Southern languages from Portugal to the Black Sea may show LHM, with a non-finite V or Aux in C0, and the finite Aux lower in the tree. Triggers for Short and Long Head Movement behind these 'V2' 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 the above background, I turn to further refinements of LHM in view of languages not considered in the previous papers, once I distinguish two types as to Negation and LHM in sect. 3.

3. 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 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 proposes that the contrast follows from the different syntactic position of Neg in the two types. Section 4 provides additional motivation for the analysis given previously for the first group, by examining new Serbo-Croatian data. Section 6 explores the syntax of Negation in the second group, by studying in detail the properties of Slovak, and confirming evidence from Czech.

3.1. Italian-type languages and LHM.

On the one hand, a first group of languages disallows Negation within LHM constructions. Grammatical patterns are exclusively affirmative, as seen above, and negative patterns are clearly ungrammatical (Rivero 1988b: sect. 3). Bulgarian (19) exemplifies this situation, with (19a) the negative pattern with overt subject, (19b) the null subject version, and (19c-d) two imaginable patterns with LHM in the presence of Neg.

(19) a. Az ne sum procel knigata.
   'I have not read the book.' (Bulgarian)
   b. Ne sum procel knigata.
   c. *Procel ne sum knigata.
   d. *Ne procel sum knigata.
This first group is extensive, including Bulgarian, Rumanian, Serbo-Croatian, Slovenian, and possibly Albanian. The major Old Romance LHM languages seem to fall into this category too, with Portuguese grammarians stating the point explicitly early this century, when LHM was almost current. Rivero (1988b:sect. 2) and Lema and Rivero (1989a-b) argue that in this first group, Negation heads a maximal projection taking Tense as complement ((Belletti 1990; Chomsky 1989; Laka 1989; Ouhalla 1990; Pollock1989; Zanuttini1989) among others), so Neg c-commands Tense; following Zanuttini's terminology, I label this group the Italian-type (perhaps to the surprise of Slavicists). Given its position as intervening head, Neg\textsuperscript{0} creates a barrier for LHM of the main V\textsubscript{0} to C\textsubscript{0}, blocking the process, which accounts for the ungrammaticality of present LHM negative patterns, or the absence of such patterns in Old Romance. In view of this situation, Roberts (1990:ch. 1) proposes that Neg is an A-bar head, with LHM an A-bar movement for heads, so a V\textsuperscript{0} crossing Neg\textsuperscript{0} in LHM violates Relativized Minimality.

However, as the Romance and Slavic traditions maintain, it could be argued that ne 'not' in (19b), or NegP in the Italian-type, counts as the first constituent for the clitic-like Aux sum, so that LHM becomes inapplicable, irrespective of the nature of Neg as head. Under this view, (19c-d) do not necessarily show that NegP is a barrier in the movement path of LHM, which is important in view of the second group of languages. Nevertheless, specific properties of Serbo-Croatian in sect. 3.2 will be crucial in motivating the proposed blocking effect of Neg\textsuperscript{0} in the first group.

2.2. English-type languages and LHM

On the other hand, Czech and Slovak allow negative LHM patterns with clear grammatical status, as in the common word orders in (20), parallel to deviant Bulgarian (19d) in the relevant sense. Thus Neg has no blocking effect in this group.

(20) a. Ne-koupil jsem knihy.
not-bought have+1SG books 'I did not buy books.' (Czech)

b. Ne- napisal som list.
not-written have+1SG letter 'I have not written a letter.' or 'I did not write a letter.' (Slovak)

I argue that in this less extensive type, Neg is located differently, that is, below Tense (and Aspect), as discussed in sect.6, as first proposed for English by Pollock (1989), but closer to the analysis in (Ouhalla 1990), so I will label this second group the English-type, perhaps to the surprise of Slavicists too. In this type of LHM language, Negation does not c-command Tense in syntax, and I argue that Neg\textsuperscript{0} heads a NegP into which V\textsuperscript{0}/Aux\textsuperscript{0} raises, forming a complex which undergoes LHM to C\textsubscript{0}.

In conclusion, LHM languages 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\textsuperscript{0} in either group, two different strategies exist: (1) in the Italian-type, LHM fails to coexist with Neg, and (2) in the English-type, the effect of Neg is neutralized by Incorporation.
4. LHM AND NEGATION IN SERBO-CROATIAN

The main aim of sect. 4 is to show that Neg is not crossed in LHM, whether it is the first constituent in the clause or not, since it is a blocking head, in view Serbo-Croatian. In sect. 4.1, I establish that Serbo-Croatian shows LHM with the characteristics in (Rivero 1988b:sect. 3; Lema and Rivero 1989a-b). In sect. 4.2, I argue for the barrierhood of Neg in LHM. In sect. 4.3, I show that the non-finite X target of LHM cannot incorporate into Neg because the finite X does instead; as a result, there is no strategy leading to well-formed negated LHM constructions in Serbo-Croatian, which contrasts with Slovak and Czech, as discussed in sect. 6.

4.1. Serbo-Croatian LHM

LHM is found with the Perfect (=Past), Future, and Conditional Aux in root clauses, as in (21b-23b), but not in embedded clauses, (21c). These are the tenses for Rumanian and Slovenian LHM, and close to Czech and Slovak (Perfect and Conditional), and Old Romance (Future and Conditional). The fronted item can be a Participle, (21b) and (23b), or an Infinitive, (22b), as in Rumanian LHM.

(21) a. Ja sam \textit{citao} knjigu.
    I \textit{have+1SG} read book
    'I have read the book.' (Serbo-Croatian)

b. \textit{Citao} sam knjigu.

c. *Rekao mi je \textit{da citao sam knjigu}.
    told me have+3SG that read have+1SG book
    '*He told me that I read the book.'

(22) a. Ja cu \textit{citati} knjigu.
    I \textit{will+1SG} read book
    'I will read the book.'

b. Citacu (= \textit{Citati cu}) knjigu.

(23) a. Ja bih \textit{citao} knjigu.
    I \textit{would+1SG} read book
    'I would read the book.'

b. \textit{Citao} bih knjigu.

As for \textit{functional} Aux in LHM languages, the previous Serbo-Croatian Aux disallow VP-Preposing, as in (24), mentioned explicitly in (Browne 1975). The deviance of (24) is important to distinguish V raising from other Serbo-Croatian fronting processes. For instance, preposing a P with its complement to a position preceding the Aux is grammatical, but preposing a V and complement is not, so the two frontings must differ formally: p\textit{max} vs V0.

(24) a. *[Citao knjigu] sam
    b. *[Citati knjigu] cu
    c. *[Citao knjigu] bih
Also, the locality of LHM targeting the head complementing the finite Aux is deduced from the properties of the future formed with the particle *da*, mentioned by Browne (1975), as in (25).

    I will+1SG  PRTC read+1SG book
    'I will read the book.' (Serbo-Croatian)
b. *Citam cu da knjigu.
c. *[Da citam knjigu] cu.
d. *[Citam knjigu] cu da.

In view of (Rivero 1988b: sect. 2), the Serbo-Croatian Future Aux may take a VP-complement, as in (22a), or a sentential (IP or CP) complement with finite V, as in (25a), within a structure frequent in the Balkans. Then, in (25a), *da* is the X^0 heading the complement of the Aux, and is a Modal Phrase. In sect. 1.5 we saw that a Czech non-finite intervening head blocks LHM, preventing antecedent-government of the resulting trace. Likewise, Serbo-Croatian (25b) with *citam* extracted to the matrix C across an intervening *da* is ungrammatical, confirming results based on Rumanian (Rivero 1988b: sect. 3) that Balkan Inflectional Particles as M^0, unlike functional Aux, are barriers to LHM (see sect. 5 too). In view of Roberts’ A/A-bar dichotomy (1990: Ch. 1), it can be assumed that such Modal particles are A-bar heads which cannot be bypassed by LHM as A-bar Head-movement. If *da* is taken to be in C^0, similar results obtain. Also, since Future Aux is functional, allowing LHM out of its VP-complement, as in (22b), it disallows X^{max}-Preposing, (25c).

In brief, Serbo-Croatian LHM has the properties found in previously studied LHM languages. It is a local process licensed by functional Aux, reserved for root contexts; it escapes the HMC, subject to an ECP sensitive to Relativized Minimality via antecedent-government, and differs from VP-Preposing, Stylistic Fronting, or Head-adjunction to IP.

3.2. The blocking effect of Neg on LHM

In Serbo-Croatian, Neg is placed before the finite V in simple tenses, (26), and the finite Aux in compound tenses, (27), like in Italian-type languages.

(26) (Ja) ne  citam.
    I not read+1SG
    'I do not read.' or 'I am not reading.' (Serbo-Croatian)

(27) (Ja) nisam  citao.
    I not+have+1SG read
    'I have not read.'

Thus I assume that Neg heads NegP (as first proposed for Japanese by Kitagawa (1986), and later by others), and takes Tense as complement.

Serbo-Croatian is one of the languages where Neg blocks LHM, as in (28c). As a consequence, LHM patterns are affirmative, a point often noted in descriptions of this language.

(28) a. Ja nisam  citao knjigu. (Serbo-Croatian)
b. Nisam *citao knjigu.
   'I have not read the book.' (28a-b)

The proposal that NegO as intervening head blocks the movement of VO to CO, while the functional AuxO alone obviously does not, accounts for the ungrammaticality of (28c). However, if ni 'not' is either the first item in the clause, or exempts the Aux sam from clitichood, as the tradition maintains, LHM would not apply irrespective of the formal status of NegO. Thus, to establish that NegO has a blocking effect on LHM, as hypothesized, a different set of Serbo-Croatian patterns is required.

In Serbo-Croatian, Clitics must appear in second position in the clause (Browne 1974, 1975), which contrasts with Bulgarian. In both languages, Pronouns and Aux 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 (29). In (29a) the V *vidim* is the first constituent, and ga 'him' is in second position; in (29b) the Clitic follows the initial Adverb, and is not linearly adjacent to the finite V, and in (29c) the clitic *im* 'to them' follows the first wh-phrase and precedes the second. While Bulgarian simple tenses display finite V + Clitic orders too, as in (30a), phenomena such as (29b-c) are absent (i.e. ungrammatical); pronominal Clitics must be linearly adjacent to the finite V, as in (30b), with the two wh-phrases preceding ti 'to you', in contrast with Serbo-Croatian (29c) (and see (Rudin 1988)). Intuitively, Bulgarian and Serbo-Croatian Clitics are sensitive to different versions of Wackernagel effects.

(29) a. Vidim    ga. (Serbo-Croatian)
   See+1SG him
   'I see him.'

b. Sad  ga    ne   vidim.
   Now him not see+1SG
   'Now I do not see him.'

c. Koliko    im         ko    daje? (Rudin 1988:463)
   How+much  to+them who  gives?
   'Who gives how much to them?'

(30) a. Vidiauxme   go
   Saw+1PL  him
   'We saw him.' (Bulgarian)

b. Koj    kakvo ti    e    kazal? (Rudin 1988: 461)
   Who what  you has told?
   'Who told you what?'

As shown by (29b), Serbo-Croatian pronominal Clitics may precede Neg but require a first constituent. In the absence of an initial Adverb or a preverbal Subject, the required constituent could in principle be the VO moved to CO through LHM. Such movement would cross NegO, no longer a first constituent, in order to support the otherwise initial Clitics. However, as I now show, in such a situation LHM produces an ungrammatical result, motivating the hypothesis that NegO is a blocking intervening head in the Italian-type. Consider the variation between affirmative and negative Perfects with pronominal Clitics (Conditional and Future are similar):
Long Head Movement and Negation.                  María Luisa Rivero


(31) a. Ja sam mu se predstavio.
I have+1SG to+him myself introduced
'I have introduced myself to him.' (Serbo-Croatian)
b. Ja mu se nisam predstavio.
I to+him myself not+have+1SG introduced
'I have not introduced myself to him.'
c. *Ja sam mu se {nipredstavio/ ne predstavio}.

In (31a), the Clitic complex sam mu se is in second position. In the negative version, the pronominal Clitics mu se precede ni. Without proposing a specific analysis, this order nevertheless suggests that the pronominal Clitics may 'cross' Neg to reach such second position, either because they do not move as X0s, but X1s (Rivero 1986, 1990 for Old Spanish), or because they are A-heads. The crossing option is not available to the Aux, which traditionally 'ceases' to be a Clitic: (31c). In my view, the finite Aux like other verbal-heads is unable to cross Neg, for reasons I will not explore, incorporating into it, an aspect I turn to in sect.4.3.

The null subject version of (31a) involves LHM to provide an initial constituent for the clitic complex sam mu se, as in (32a), but the LHM order in (32b), corresponding to (31b), is ungrammatical, unless pronounced with focus on nisam, meaning 'I have NOT introduced myself to him', as Wayles Browne points out to me (I return to this pattern immediately). In brief, while LHM can cross Aux and Clitics, it cannot cross Neg, even when this item is not initial, and pronominal Clitics require a first constituent for support. The grammatical negative version of (32a) is (32c), which I discuss in sect. 4.3.

(32) a. Predstavio sam mu se.
introduced have+1SG to+him myself
'I have introduced myself to him.' (Serbo-Croatian)
b. *Predstavio mu se nisam.
c. Nisam mu se predstavio.

Wayles Browne points out too that if (32b) has focus on nisam, the ordering is not necessarily for main clauses, as shown by his (33):

(33) Milan mi je rekao da mu se predstavio nisam.
Milan me have+3SG told that to+him myself introduced not+have+1SG
'Milan told me that I HADN'T introduced myself to him.'

In view of such property, I suggest that patterns with focus on nisam do not involve LHM; they could perhaps result from nisam moving to the right, a non-root process likely to apply when finite Vs are last, with focus intonation, in languages such as Czech too.

In conclusion, in the Italian-type, Neg as intervening head blocks movement of V0 to C0, as already proposed (Rivero1988b:sect. 3 for LHM, and sect. 4 for 'true' Imperatives).

3.3. Serbo-Croatian Finite Incorporation into Neg and LHM

If in the Italian-type, Neg c-commands Tense and the functional Aux transparent to LHM, a possible derivation for LHM with Neg is as in (34), but must be excluded. Namely, the X0 complementing the functional Aux0 (a) could bypass this category by LHM, (b)
incorporate into Neg\textsuperscript{O} as c-commanding head, and (c) subsequently, the head-complex thus formed could move to C\textsuperscript{O}.

\begin{equation}
\begin{array}{c}
C\textsuperscript{O} - \frac{\text{Neg}\textsuperscript{O} - \text{Aux}\textsuperscript{O} - V\textsuperscript{O}}{\text{INC by LHM}}
\end{array}
\end{equation}

In such derivation, where Neg\textsuperscript{O} is not bypassed by a verbal-like X\textsuperscript{O}, LHM in a negative Perfect Tense gives identical outputs in Italian and English types: deviant Bulgarian (16d), repeated as (35), in the first case, and grammatical Czech (17a), repeated as (36), in the second.

(35) *Ne procel sum knigata.

not read have+1SG book+the (Bulgarian)

(36) Ne-koupil jsem knihy.

not-bought have+1SG books (Czech)

'I did not buy books.'

I propose that Neg is a c-commanding head in the path of LHM and may serve as target for Incorporation in both groups. However, in Serbo-Croatian, option (34) is unavailable due to a factor which further motivates the assumed structure of Neg\textsuperscript{P}: namely, the functional Aux\textsuperscript{O} incorporates into the c-commanding Neg\textsuperscript{O}, precluding the LHM Incorporation of the X\textsuperscript{O} heading its complement.

Two phenomena concerning pronominal Clitics motivate that a finite complex incorporates into Neg\textsuperscript{O} in Serbo-Croatian. First, as pointed out above, Clitics must appear second in the clause. In a simple tense with Neg, (37), Clitic ga 'him' must follow both Neg and V; this order follows if the finite V\textsuperscript{O} incorporates into Neg\textsuperscript{O}, so that the two count as a first constituent.

(37) Ne vidim ga.

Not see+1s him

'I do not see him.' (Serbo-Croatian)

Second, in compound tenses pronominal Clitics appear in second position, preceding Neg, such as mu se in Ja mu se nisam predstavio in (31b), but the finite Aux sam must remain attached to preceding Neg. With no Neg, the Aux is like another Clitic and must appear second, as in (38), with je 'has' between the wh-phrases.

(38) Ko je sto kome dao? (Rudin 1988:462)

Who has what to+whom given?

'Who gave what to whom?'

Pending a detailed treatment of Clitics, I suggest that the finite Aux\textsuperscript{O} follows Neg in (31b), away from pronominal Clitics because sam incorporates into ni. Further motivation for this view comes from (32c), Nisam mu se predstavio, where the negated Aux counts as the first constituent for the Pronominal Clitics, i.e. it forms a unit. From this perspective, the finite head-- be it V simple tenses, or Aux in compound ones-- always raises to Neg\textsuperscript{O} in Serbo-Croatian, forming a syntactic unit.\textsuperscript{2} Under this analysis, in the Italian-type, Neg
must be a head c-commanding both the finite complex formed within Tense\(^0\), and the target of LHM.

4. LHM IN SLOVAK AND CZECH

The remainder of the paper examines the properties of the English type, with Neg in a basic position which does not c-command Tense, in relation to LHM, as represented mainly by Slovak. This section is a detailed description of LHM, as it appears in the speech of my Slovak informant, a young adult speaker of the standard language (as spoken on TV), who left Czechoslovakia three years ago; at the same time, I mention similarities and differences with Czech. In sect. 5, I turn to Neg and LHM.

Slovak patterns with LHM contain the Aux be/have, used in the Perfect (=Past), Conditional, and Past Conditional. Grammars mention a Past Perfect with this Aux too, but this tense is unknown to my informant, so it must be completely obsolete. The Perfect (=Past) has the by now familiar properties of the parallel construction in all the Slavic

and Balkan languages with LHM, including Czech, as in (40). As seen in (39b), V\(^O\) fronts leaving object NP in situ, with VP-Preposing ungrammatical, (39c).

(39) a. Ja som napisal list.
    I have+1SG written letter
    'I wrote a letter.' (Slovak)
 b. Napisal som list.
 c. *[Napisal list] som.

(40) a. Koupil jsem ti knihy.
    bought have+1SG books
    'I bought books.' (Czech)
 b. *[Koupil knihy] jsem.

The Slovak Conditional and Past Conditional show LHM, but syntactically differ in interesting ways from corresponding tenses in other LHM languages, including Czech.\(^3\) The Slovak Conditional is a Present Perfect preceded by the invariable by glossed COND, as in (41). In contrast, the Czech Conditional in (42) is formed by an Aux, showing Person/Number, which is also the case in Serbo-Croatian, Rumanian, and Old Romance.

(41) Ja by som napisal list.
    I COND have+1SG written letter
    'I would write a letter.' (Slovak)

(42) Tehdy bych koupil knihy.
    then would+1SG bought books
    'I would then buy books.' (Czech)

On the one hand, the Slovak Past Conditional shows the same invariable by, followed by Present have/be, a Past Participle of this same Aux, and a Past Participle of the main V, as in (43). On the other hand, the Czech Past Conditional is formed by the inflected Conditional Aux followed by a Participle of have/be, and the main V as Participle, as in (13a) repeated as (44).

(43) a. Ja by som napisal list.
    I COND have+1SG written letter
    'I would write a letter.' (Slovak)

(44) a. Tehdy bych koupil knihy.
    then would+1SG bought books
    'I would then buy books.' (Czech)
In LHM in the two Slovak Conditionals, the head of the complement of the finite Aux moves, namely the main V *napísal* in the structure corresponding to (41), (45a), and the Auxiliary Participle *bol* in the structure corresponding to (43), that is, (45b). Thus the presence of *by* is immaterial, or, in traditional terms, this item is also a clitic, or does not exempt *som* from clitichood. The word orders in (45) are the only grammatical verbal fronting options, as VP-Preposing is excluded, and *napísal* in (43) cannot be fronted alone: (45c). As in other Slavic languages, Participles agree in Gender and Number with subjects, so in (45) *napísal* and *bol* are Masculine and Singular; however, as stated, this (Subject) Agr relation does not extend the LHM chain, which stops with the complement of the tensed Aux.

(45)  a.  *Napísal* by som list.  
    written COND have+1SG letter  
    'I would write the letter.' (Slovak)  
  b.  *Bol* by som *napísal* list.  
    have+PARTICIPLE COND have+1SG written letter  
    'I would have written the letter.'  
  c.  *Napísal* by som *bol* list.

LHM in Czech Conditionals fronts the first non-finite item after the finite Aux, as in (46a) and (13b) repeated as (46b).

    bought would+1SG books  
    'I would buy books.' (Czech)  
  b.  *Byl* bych t₁ *koupil* knihy.  
    have would+1SG bought books  
    'I would have bought books.'

The Slovak patterns in (45) raise two important contrastive issues for the typology of LHM. On the one hand, abstracting from the presence of *by*, Slovak exhibits the same LHM locality conditions as Serbo-Croatian, and Czech, since (45b) becomes parallel to the Czech Past Conditional, with the item immediately to the right of the finite Aux moving. So why is Slovak *by* immaterial for LHM, being bypassed in the movement chain?

On the other hand, when *by* is considered, Slovak differs from Bulgarian, and Rumanian, which disallow LHM in the context of invariable particles preceding a finite Aux. Consider the Bulgarian Future Perfect in (47a), formed with the Future particle *ste* glossed FUT, followed by the Present Perfect Auxiliary *sum* 'I have', and the main V *procel* 'read' as Participle. This Bulgarian tense appears structurally parallel to the Slovak Conditional in (41), 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, with (47b) grammatical, and (47c) with LHM is deviant.
Long Head Movement and Negation. María Luisa Rivero


(47) a. Az ste sum procel knigata.
    I FUT have+1SG read book+the
    'I will have read the book.' (Bulgarian)
b. Ste sum procel knigata.
    '(I) will have read the book.'
c. *Procel ste sum knigata.

Thus, what is the difference between Bulgarian *ste* and Slovak *by*? The tradition is that Bulgarian *ste* is a non-clitic providing support for *sum*, 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, *bjax* 'I had' in (48a), is not clitic-like and may stand in initial position. However, it allows LHM too: (48b). Thus, there is an important formal distinction between non-clitic *ste* and non-clitic *bjax*, which traditional approaches fail to capture: namely, the first is opaque to LHM while the second is not.

(48) a. Bjax procel knigata.
    had+1SG read book+the
b. Procel bjax knigata.
    'I had read the book.' (=(48a-b)) (Bulgarian)

Second, consider the Rumanian Past Subjunctive in root environments: (49a). Like the Bulgarian Future Perfect and the Slovak Conditional, it is formed by an invariable Particle, *să*, an Auxiliary, *fi*, and main V as participle. As shown in (49b), it is parallel to Bulgarian and Slovak in disallowing LHM (Rivero 1988b sect. 3).

(49) a. Să fi adunat el atîtîa bani?
    SUBJ has collected he so+much money?
    (Mallinson 1986:291) (Rumanian)
    'Could he really have collected so much money?'
b. *Adunat să fi el atîtîa bani?

Rumanian LHM is similar to English Subject-Aux Inversion in being for questions and exclamations, and does not create a Wackernagel effect for Aux or Pronominal Clitics, which can stand in initial position. 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, while Slovak *by* is an A-head. However, this move is as taxonomic as the Slavic traditional approach listing count Clitics vs. non-Clitics. Instead, I propose that the contrast follows from the different structural treatment of modal-like 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: sect. 2), as in (50a), with MP corresponding to my earlier IP. They cannot be bypassed in LHM because as tenseless c-commanding items, they project a barrier. To use Roberts's terminology (1990), the Balkan Mº is an A-bar head parallel in its effect to Negº in the first group of LHM languages. On the other hand, Slovak *by* is the Spec of Tense, corresponding to Mº in (50b), and does not intervene in the movement path of LHM.
In (50a) and (50b), the functional $\text{Aux}^0$ amalgamates with $T^0$; however, $V^0$ is able to cross this complex to reach $C^0$ only in the second case. Under this hypothesis, Slovak LHM has the local properties of languages such as Czech, 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 Balkan languages, such as Bulgarian and Rumanian, is COMP-INFL Agreement, as discussed in (Rivero 1988a: sect. 2.1, 1989a: sect. 2). 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, Raising, and absence of Obviation. The Slovak particle does not play such head-roles, so finite complements are islands in the sense used for English, and Infinitive complements have familiar properties.

In brief, the Slavic and Balkan languages considered so far fall into four types with respect to LHM locality effects, while in Old Romance locality is strict (Lema and Rivero 1990). First, a particle preceding the finite functional Aux may be bypassed (Slovak), or not (Bulgarian and Rumanian), which follows from the different structural position of particles. Second, a non-finite head of the be/have type following the finite functional Aux may be bypassed (Rumanian and Bulgarian), or not (Czech, Slovak), a situation requiring further research, as mentioned in sect. 1.5. In these less local contexts, VP-Preposing is disallowed.

Within this analysis, in sect. 6 I examine Slovak Neg in LHM. Czech is quite similar and will only be exemplified when patterns differ.

6. NEGATION IN SLOVAK AND CZECH

When considering the position of sentential Negation in Slovak, two situations must be distinguished. First, in simple tenses, as in (51-2), ne 'not' precedes the verbal complex, parallel to Italian, and the first LHM group, but unlike English. Similar phenomena are found in Czech.

(51) a. Volá.
    'He calls, he is calling.' (Slovak)

   b. Nevolá.
    'He does not call, he is not calling.'

In (50a) and (50b), the functional $\text{Aux}^0$ amalgamates with $T^0$; however, $V^0$ is able to cross this complex to reach $C^0$ only in the second case. Under this hypothesis, Slovak LHM has the local properties of languages such as Czech, in that the movement chain includes a tensed Aux, and no other c-commanding intervening item.

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(51) a. Volá.
    'He calls, he is calling.' (Slovak)

   b. Nevolá.
    'He does not call, he is not calling.'
Second, in compound tenses, Neg follows the finite Aux, similar to English, and unlike the first group of LHM languages or Italian. The Slovak Perfect (=Past) in (53a) is equivalent to its English gloss, and the Slovak Conditional in (53b) is also equivalent to this English Perfect, given the previous analysis of the Modal particle by. Also, the Slovak Past Conditional in (53c) has Neg in the same relative position as English I have not been reading, with by as the equivalent of the (putative) Spec of English have. The tradition is to write ne and the following item as one word, a spelling convention with a linguistic motivation in view of my analysis. Affirmative patterns for (53a-c) are (39), (41), and (43) respectively.

\[
\begin{align*}
(53) & \quad a. \quad \text{Ja som ne- napísal.} \\
& \quad \text{I have+1SG not-written} \\
& \quad \text{I have not written.' (Slovak)} \\
& b. \quad \text{Ja by som ne- napísal.} \\
& \quad \text{I COND have+1SG not-written} \\
& \quad \text{I would not write.'} \\
& c. \quad \text{Ja by som ne- bol napísal.} \\
& \quad \text{I COND have+1SG not-had written} \\
& \quad \text{'I would not have written.'}
\end{align*}
\]

The Czech Perfect is parallel to (53a), but differences between Slovak and Czech Conditionals gives the contrasts between (53b-c) and (54a-b), with ne following the finite Aux in all cases.

\[
\begin{align*}
(54) & \quad a. \quad \text{Pan by ne- koupil.} \\
& \quad \text{man would+3SG not-bought} \\
& \quad \text{'A man would not buy.' (Czech)} \\
& b. \quad \text{Pan by ne-byl koupil.} \\
& \quad \text{man would+3SG not-had bought} \\
& \quad \text{'A man would not have bought.'}
\end{align*}
\]

For a unitary account of (a) the above distribution, and (b) the properties of Neg under LHM discussed later, I assume that Slovak/Czech Neg is the head of NegP, similar to Neg in the Italian-type; however, Slovak/Czech NegP is the syntactic complement of the Tense/Aspect complex, rather than taking TP as complement, in contrast with Neg in the Italian-type. Also, as in Serbo-Croatian in view of sect. 4.3, Slovak/Czech Neg as head is an affix, that is, a prefix, so the head of its complement incorporates into it, forming an X0-complex available for further Head-movement, be it short or long, as we shall see.

The analysis I propose for Slovak/Czech has points of contact with Ouhalla's treatment of English Neg (1990) (see (Zanuttini 1989) too). However, other than the strict locality of Head-movement for VO/AuxO Ouhalla adopts and I abandon in view of LHM, I assume that in the English-type, Neg is selected by Tense/Aspect but need not select VP, contra Ouhalla. Thus, Neg follows the Aspectual Aux, but may precede subsequent Aux, as in (53c) and (54b), similar to the English Perfect with Progressive (I have not been reading the book). Within the above tenets, the simple tenses in (51b-52b) have the basic structure in (55).
In (55), V incorporates into Neg, a prefix, and the complex raises to T, a suffix, so the forms in (51b-52b) result from two successive applications of short Head-movement. Because Neg triggers Incorporation, the negative Slovak/Czech simple tense is apparently identical to a negated simple tense in the Italian-type, 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 (53), I locate NegP below the Aspectual Aux treated as a projection distinct from Tense, as in (56-57). However, it could also be that T is headed either by an affix, as in (51-2), or by a stem with a strictly temporal value (=Past), with (51-2) and (53) 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 Slovak Perfect in (53) corresponds to (56), which serves not only for the Czech Perfect but the Conditional in (54a) too; the Aspectual/Conditional Aux raises to T, and the main V incorporates into Neg, which is the complement of this Aux. 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 Slovak Conditional in (53b) has a similar derivation, with the addition of the Modal marker by as Specifier of Tense, (57).

Finally, the Slovak Past Conditional in (53c) is as in (58). TP includes the Specifier by, which if omitted gives the Czech Past Conditional in (54b). 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.

(58)

\[
\begin{array}{c}
\text{TP} \\
\text{by} \\
T' \\
\text{HM} \\
\text{T}^0 \quad \text{AspP} \\
\text{AO} \quad \text{NegP} \\
\text{HM} \quad \text{Neg}^0 \quad \text{AuxP} \\
\text{Aux}^0 \quad \text{VP} \\
\text{VO}
\end{array}
\]

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\(^0\) and the non-finite incorporated X\(^0\) originating as the head of the complement of NegP form the head-complex which undergoes LHM to C\(^0\), both in Slovak and Czech. Thus, the Null Subject versions of the patterns in (53a-b-c) are (17b), repeated as (59a) for ease of exposition, and (59b-c) respectively, as the only grammatical word order options. In the Perfect (59a), Neg and main V undergo LHM, and the same is true in the Conditional in (59b), in the presence of the Specifier by, which fails to intervene in the relevant sense, as stated. In the Past Conditional in (59b), Neg and the first Aux bol following the Aspectual form the X\(^0\) fronted by LHM, again across the Aux\(^0\) which raises to T\(^0\), but not across the Specifier by, in the relevant sense. The derivation proposed for (59c) is given in (61). The Czech patterns appear in (60).

(59) a. Ne- nápisal som list.
    not-written have+1SG letter
    'I have not written the letter.' or 'I did not write the letter.' (Slovak)

b. Ne- nápisal by som list.
    not-written COND have+1SG letter
    'I would not write the letter.'

c. Ne- bol by som nápisal list.
    not-had COND have+1SG written letter
    'I would not have written the letter.'

(60) a. Ne-koupil jsem.
    'I did not buy.' (Czech)

b. Ne-koupil bych.
    'I would not buy.'

c. Ne-byl bych koupil.
    'I would not have bought.'
Examples (59-60) and previous word order phenomena in simple and compound tenses with no LHM justify the claim that Neg is a head, and complements the tensed functional Aux (or, Aspect, in the proposed treatment), as this is the only X\(^0\) that can be bypassed in LHM.

Furthermore, Incorporation into Neg, with subsequent LHM of the complex to C\(^0\), as in (59-60), 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, unless it is assumed that the main V in (59a-60a) is in the SpecVP. In particular, under this approach, bol in (59c) must be an intermediate Aux\(^0\) heading a maximal projection taking the VP headed by napisal 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. Similar comments apply to Czech.

Thus, Slovak/Czech Incorporation of Aux\(^0\) into Neg\(^0\), and the Old Romance Incorporation of V\(^0\)/Aux\(^0\) into a functional Aux\(^0\), forming synthetic Futures (Lema 1989; Lema and Rivero 1989a-b, 1990), are different facets which show that in LHM languages Aux are not Specifiers, unlike the Conditional marker by in Slovak, but head maximal projections which take AuxP or VP as their own complements.

7. SUMMARY AND CONCLUSIONS

LHM is the process which raises an X\(^0\) to C\(^0\), bypassing an intervening tensed Aux\(^0\) which does not interrupt the Head-movement chain. Because the landing site of LHM is C\(^0\), LHM constructions, common in the Balkans Western and Southern Slavic and Old Romance, share the characteristics of Germanic V2. Although LHM has been considered impossible since it is absent in Germanic (for principled reasons in view of V2, if (Rivero 1991) is correct), it complies with the ECP subject to Relativized Minimality for X\(^0\)-movement. LHM languages fulfill ECP locality requirements, even though they differ in characteristics for LHM constructions, as shown by the different role of Inflectional Particles in Slovak and the Balkans in sect. 5.

LHM can never bypass Neg, which functions as intervening head within its own maximal projection and blocks the formation of the X\(^0\)-chain, leading to an ECP violation,
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as shown by Serbo-Croatian in sect. 3. Nevertheless, LHM languages fall into two 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. In Serbo-Croatian this is because the functional AuxO incorporates into NegO instead (i.e. short Head-Movement), as discussed in sect. 4.2. LHM Italian-type languages are numerous, including major Old Romance languages except 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, NegO undergoes LHM to Co together with the XO which incorporates into it, as seen in sect. 6. English-type LHM languages are less numerous, including Czech and Slovak.

Notes.

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1 LHM fails to apply if an item is generated in/moved to a slot following Co and preceding Aux, including Subjects in the SpecIP. Also, LHM does not apply if an item is generated in/moved to a slot preceding Co within CP (i.e. SpecCP). Wh-phrases, Focus-phrases and pre-Aux Subjects inhibit LHM for the same reason, Economy of Derivation, but Left-dislocated items and CP-external constituents do not (Rivero 1991).

2 Bulgarian and Old Romance Clitics precede the finite item when Neg is present, suggesting that the Serbo-Croatian solution does not extend to these languages.

3 The Czech Future is not a LHM Aux and may stand in initial position:

(i) Budu kupovat knihy. (Czech)
    shall+1SG buy books
'I shall buy books.'

Czech Perfect/Conditional Aux are used with any V, but Future byti selects Imperfective Vs, while the Present affix has future meaning with Perfective Vs. Thus, the Future has 'Aktionsart' content, in a way Perfect /Conditional as temporal markers do not, so I conclude that it is a lexical category. Also the Future as lexical category allows VP-Preposing, (ii), similar to Modal must, (iii), and unlike the Perfect, (iv) (or the Conditional). Slovak Futures may be parallel. For the dichotomy between Old Romance Perfects as lexical vs. Future/Conditionals as functional see (Lema and Rivero 1990).

(ii) [Koupovat knihy] budu t.
    buy books will+1SG
    'Buy books, I will.' (Czech)

(iii) [Chtit vedet] jsem musel t.
    Want know have+1SG must
    'Wished to know, I must have.'

(iv) *[Koupil knihy] jsem t.
    bought books have+1SG
    '*Bought books, I have.'

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