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BULGARIAN AND SERBO-
CROATIAN YES-NO
QUESTIONS: V⁰-RAISING TO
-LI VERSUS -LI HOPPING
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Chomsky (1991) proposes that in Universal Grammar (UG) V⁰-raising is preferred over lowering of the affix-hopping type, because the latter is more costly than the former. In this squib I show that the distribution of the Bulgarian (B) and Serbo-Croatian (SC) question clitic *-li* in relation to Verbs supports this view of the relative costliness of lowering. Although recent treatments of English affix hopping by Iatridou (1990), Chomsky (1992), and others have cast doubt on the availability of X⁰-lowering in UG by treating the relevant constructions as Spec-head agreement between a specifier and a base-inflected V, I will argue that Bulgarian *-li* cannot be so analyzed and that the facts thereby provide support for lowering.

I claim that B and SC *-li* is a bound morpheme generated in C⁰, which cannot remain stranded at S-Structure. B offers two X⁰-movement options to provide morphological support for this bound morpheme. V-movement may apply, incorporating V to *-li*. If this raising would violate constraints, then *-li* lowers instead. SC displays V-raising, but lacks the option of *-li* lowering.

1 V⁰-Raising to *-li* in Bulgarian and Serbo-Croatian

1.1 Simple or One-Word Tenses

The B and SC statements in (1) correspond to the yes-no questions in (2). In (2) *-li* occurs in second position, following V.

- (1) a. Vidjaxme kniga-ta. (B)
see + AORIST + IPL book-the
'We saw the book.'

I thank three reviewers and the editors for helpful comments, and Mila Dimitrova-Vulchanova and Emil Savov for Bulgarian data. M. Dimitrova-Vulchanova has provided extremely useful discussion, so I am indebted to her for this aspect also. SC *da li* and *-li* are discussed by Browne (1974, 1975), with excellent data; for examples not found in these sources, and help with SC, I am grateful to A. Donskov. I also thank the SSHRCC for grants 410-88-101 and 410-91-0178, and the Eurotyp project of the ESF. Usual disclaimers apply.

- b. Marko studira medicinu. (SC)
 Marko study + PRES + 3SG medicine
 'Marko is studying medicine.'
- (2) a. Vidjaxme *li* knigata?
 'Did we see the book?'
- b. Studira *li* Marko medicinu?
 'Is Marko studying medicine?'
- c. **Li* vidjaxme knigata?

I suggest that the question particle *-li* is a bound morpheme that (a) occupies C⁰ in questions and (b) needs support and thus triggers incorporation of the finite V to C.

Support for the view of *-li* as a bound morpheme comes from the presence in both B and SC of a free question morpheme *dali*. Since *dali* is a free form, no V-raising occurs, as illustrated in (3). Thus, this V-movement is similar to the V2 patterns in German, in which V moves to C unless C⁰ contains a full-fledged lexical item.

- (3) a. *Dali* vidjaxme knigata? (B)
 'Did we see the book?'
- b. *Da li* Marko studira medicinu? (SC)
 'Is Marko studying medicine?'
- c. *Vidjaxme *dali* knigata?

Word order is quite free in B and SC; for example, the subject can follow the object, or appear in an initial, left-dislocated position. However, nothing can intervene between V and *-li*:

- (4) *Studira Marko *li* medicinu?¹

¹ As a reviewer points out, both *-li* and *dali* may be preceded by topicalized phrases as in (i) (Rudin 1985:sec. 3.4.1). In the same vein, a stressed or focused subject can precede *-li*, as in (ii).

- (i) a. Knigata *li* šte kupi? (B)
 b. Kniga-ta *dali* šte kupi?
 book-the Q FUT buy
 'The book, will he buy it?'
- (ii) Marko *li* studira medicinu? (SC)
 'Is it Marko who is studying medicine?'

I assume that these focused phrases are in [Spec, CP] and that *-li* cliticizes onto them. Cliticization can be distinguished from V-to-*li* movement: the topic XP including all of its constituents precedes *-li* when this item cliticizes leftward, but only the V-head precedes *-li* when V-raising applies. As mentioned in Rivero 1991:sec. 4.1, the same contrast is found between XP-fronting to [Spec, CP] and head movement to C as two means to provide support for clitic auxiliaries such as *sam* 'I have'.

Another reviewer suggests that *-li* is a second-position element, resembling the inflected verb of a Germanic V2 main clause. This appears to be true of SC, where pronominal clitics are also strict second-

- (8) a. Pročel beše kniga-ta. (B)
 read have + PAST + 3SG book-the
 'He had read the book.'
- b. Beše pročel kniga-ta.
 have + PAST + 3SG read book-the
 'He had read the book.'

The yes-no questions corresponding to the sentences in (7) and (8) all show head movement to *-li*. If no barriers are crossed, V can move over the Aux (LHM), as illustrated in (9).

- (9) a. Pročel *li* e kniga-ta? (B)
 read Q have + PRES + 3SG book-the
 'Has he read the book?'
- b. Pročel *li* beše kniga-ta? (B)
 read Q have + PAST + 3SG book-the
 'Had he read the book?'

Alternatively, the verb can stay in place and the finite Aux⁰ can raise to *-li* instead, as illustrated in (10). This movement is similar to the one in Germanic that places the Aux in C.

- (10) Beše *li* pročel kniga-ta?
 have + PAST + 3SG Q read book-the
 'Had he read the book?'

In LHM patterns, *-li* is always second and therefore precedes both the finite Aux and any clitic pronouns. In general, Aux precedes pronouns, as in (11). However, in a question with *-li*, 3sg. Aux must follow the pronouns instead, as in (12).³

- (11) a. Viždal si go. (B)
 seen have + PRES + 2SG him
 'You have seen him.'
- b. Viždal *li* si go? (B)
 'Have you seen him?'
- (12) a. Viždal go e. (B)
 seen him have + PRES + 3SG
 'He has seen him.'
- b. Viždal *li* go e? (B)
 'Has he seen him?'

When there is short head movement rather than LHM, *-li*

³ As expected, *dali* questions show no X⁰-raising.

- (i) a. *Dali* si go viždal? (B)
 Q have + PRES + 2SG him seen
 'Have you seen him?'
- b. *Dali* go e viždal? (B)
 Q him have + PRES + 3SG seen
 'Has he seen him?'

appears second after the fronted Aux and precedes clitic pronouns, as in (13b).

- (13) a. Beše ja pročel. (B)
 have + PAST + 3SG it read
 'He had read it.'
- b. Beše li ja pročel? (B)
 have + PAST + 3SG Q it read
 'Had he read it?'

One additional construction in which V-raising to *-li* is observed is the biclausal tense construction.⁴ This consists of a finite Aux in the matrix, and an embedded clause with *da*, clitic pronouns, and a second inflected verbal complex, as illustrated in (14a). In yes-no questions, the matrix Aux raises to *-li* in C⁰, and the items in the embedded clause remain unaffected, as illustrated in (14b).⁵

- (14) a. Štjax [da sŭm ja čel]. (B)
 would + 1SG M have + PRES + 1SG it read
 'I would have read it.'
- b. Štjax li da sŭm ja čel?
 'Would I have read it?'

Thus, in each of the above situations in B, an X⁰ moves to Comp and adjoins to *-li*.

Now let us turn to SC. X⁰-movement to *-li* applies in SC questions with auxiliaries as it does in B, modulo some independent syntactic differences. Specifically, SC does not have past perfects; in addition, SC questions do not show LHM,⁶ although LHM is found in SC declaratives, as (15) illustrates.

⁴ See Rivero 1988:sec. 2. (For similar SC patterns, see Browne 1974:39.)

⁵ When *dali* is in the matrix C, no V-raising applies:

- (i) *Dali štjax da sŭm ja čel?*
 'Would I have read it?'

Browne (1974:39) considers SC *da* in *da li* different from the particle *da*, since the two can coexist as in (iia) (B is similar). From the perspective of this squib and the proposals in Rivero 1988, 1990, 1991, *da li* in (iia) is the head of C, and the following *da* could head a Modal Phrase, roughly as in (iib). ((iia) is from Browne 1974:39.)

- (ii) a. *Da li da ti dam knjigu?* (SC)
 Q you give + PRES + 1SG book
 'Should I give you the book?'
- b. [C[C da li [M[M[M da] [AgrT^o ti dam knjigu]]]]]

For this it must be assumed that SC *da* is not only a complementizer; rather, in matrix clauses of type (ii), (the second) *da* functions as an inflectional particle with modal value, like its counterparts in the Balkans, including Bulgarian and Macedonian. However, SC *da* introduces all types of complement clauses and precedes the embedded subject, whereas B *da* is used in subjunctives, not indicatives, and follows the

Assuming that negative questions involve head movement, first the finite V incorporates to Neg, then a complex head *ne vidim* (Neg + V) raises to C and adjoins to *-li*. This accounts for the well-known fact that finite V and preceding Neg count as one unit for second-position constraints on clitics in SC, with *-li* always first in the clitic cluster. Again, I suggest that the SC clitic pronouns are within the IP clause complementing CP, so that the clitic cluster has a structure with *-li* in C alone. (Also see Rudin 1988.)

Turning now to B, we find that whereas in affirmative questions *-li* was in second position, in Neg questions it follows both Neg and the 3rd person clitic (see (19)). I have argued in Rivero 1988 that the Neg projection is between C and T in underlying structure. Since *-li* precedes V and follows the clitic pronoun, it is clear that V fails to move to C in the presence of Neg.

- (18) Ne mu izpratix kniga. (B)
 not to + him send + AORIST + ISG book
 'I did not send him a book.'
- (19) Ne mu li izpratix kniga? (B)
 'Didn't I send him a book?'

That V cannot raise to C follows if Neg is the head of an XP, c-commands the finite V, disallows V-incorporation, and induces a barrier for X⁰-movement to C (Rivero 1988:sec. 3, 1991:sec. 3; Lema and Rivero 1989, for LHM). Since *-li* requires support, I propose that this item lowers by a language-specific process not shared by SC. In (19) *-li* left-adjoins to the finite head, or Agr/T + V complex. Other landing sites are possible in other patterns.

Unlike English affix hopping, B *-li* hopping cannot be viewed as a Spec-head agreement relation manifested by an inflected verb formed in the lexicon, since *-li* surfaces before the verb. This suggests that X⁰-lowering is available in UG.

This treatment leaves open the question of why Neg cannot raise to *-li* to support it as in (20).

- (20) *Ne li mu izpratix kniga?

The reason could be that only verb-like heads are able to raise to C.

The difference between B and SC regarding the incorporating properties of Neg requires further research. However, the claim that *-li* lowers if a barrier for raising intervenes is supported by data from future constructions.

2.2 Futures

As in other Balkan languages, B futures like (21) are formed by a Modal particle (*šte*) followed by clitics and inflected V (Rivero 1988:sec. 2, 1990, 1991:sec. 4). These futures have no exact counterpart in SC.

- (21) Šte go viždaš. (B)
 will him see + PRES + 2PL
 'You(pl) will see him.'

I have argued that items such as *šte* head a Modal Phrase, c-command the finite V⁰ (i.e., the Agr/T complex), and constitute a barrier for V-raising to C; thus, they show properties parallel to those of Neg (Rivero 1988:sec. 3, 1991:sec. 4, for LHM). As a result of this structural situation, in future questions *-li* lowers to the finite complex, right-adjoining to it, as in (22a). Finite V-raising to C, giving (22b), is impossible.

- (22) a. Šte go viždaš li? (B)
 b. *Viždaš li šte go?

Since in the negative, (19), *-li* precedes the finite V and in the future, (22a), it follows it, I assume that the negative involves left-adjunction and the future involves right-adjunction, although I have no explanation for this difference in B *-li* hopping. The landing site of *-li* requires research into data that go beyond the scope of this squib. Finally, the question of why *šte* cannot raise to C to support *-li*, giving (23), remains open.

- (23) *Šte li go viždaš?

The idea suggested above for negative patterns—that only verb-like X⁰s can raise to that position—could provide an answer.

3 Conclusion

B and SC both have V-raising to *-li* in C, a general process that is not language-specific. In addition, *-li* lowers in B if V-raising is impossible. This occurs when NegP or MP intervenes as a barrier between V and C. Thus, lowering is chosen only when raising violates constraints, in keeping with Chomsky's principle of Last Resort. SC does not have *-li* hopping, which is a language-specific rule of B.

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BINOMINAL *CHACUN* AND
PSEUDO-OPACITY

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In this squib we present data from French that display an interesting asymmetry regarding the possibilities of extraction of *combien* ‘how many’ and the position of *beaucoup* ‘many’. We are particularly concerned with the effect of the floating quantifier *chacun* ‘each’ on the distribution of these quantifiers. We show that the position occupied by *chacun* determines whether or not *combien* may be extracted and whether or not *beaucoup* may occur in preverbal position. In the last section we suggest directions in which an account of these facts may be pursued.

1 *Chacun, beaucoup, and combien*-Extraction

The quantifier *chacun* may occur in at least three different positions in the sentence: postnominal (1a), prenominal (1b), and preverbal or “adverbial” (1c).

We thank the anonymous *LI* reviewers for helpful comments. Financial assistance from the following sources is gratefully acknowledged: SSHRCC #091-29-028 and FCAR #091-28-532 research grants (C. Tellier), and SSHRCC postdoctoral fellowship #756-091-0243 (D. Valois).