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MACEDONIAN AND BULGARIAN *LI* QUESTIONS: BEYOND SYNTAX*

ABSTRACT. The distribution of the yes/no-interrogative clitic *li* in Macedonian and Bulgarian reveals a complex interaction of syntax with non-syntactic factors. The underlying syntactic uniformity of questions with *li* in the two languages is obscured by a series of prosodic idiosyncracies in one language or the other. In Macedonian, the major prosodic phenomenon affecting the placement of *li* is the option for certain sequences of words to share a single stress. In Bulgarian, two different prosodic phenomena are relevant: stressing of clitics after the negative element *ne* and inversion of initial clitics with the following verb. When these factors are controlled for, the syntax of *li* questions in the two languages is strikingly homogeneous. If no element is focused, the syntax of *li* questions in, then, in both languages, the tensed verb head-incorporates into *li* in C. Additional non-syntactic factors, including lexical differences between the two languages in the clitic/non-clitic status of certain auxiliaries and differences in the usage of *li* questions, are also discussed.

1. INTRODUCTION

Much recent work relies upon cross-linguistic comparison to elucidate the limits and causes of variation in Universal Grammar; that is, to establish what structures and processes are possible in human languages. It has often proven especially useful to compare related languages, thus teasing out differences between languages which share much of their grammatical structure. In this paper we investigate the interaction of syntax with a variety of non-syntactic phenomena by comparing aspects of two very closely related languages, Macedonian and Bulgarian. These languages belong to

the same genetic subfamily, Eastern South Slavic. In addition, they are areally related: both participate in the Balkan *Sprachbund*, sharing many of the contact-induced grammatical features common to the Balkan area. It is thus of particular interest to note cases in which the grammars of the two languages diverge. We expect that differences between such closely related languages will involve relatively simple factors, even if their effects are considerable.

We examine here one construction, the yes/no question formed with the interrogative clitic *li*, which displays interesting similarities and differences in the two languages. On the surface, Macedonian and Bulgarian appear to have distinct conditions on the placement of *li*, particularly with respect to other clitics. We argue, however, that the syntax of *li* and in fact of most clitics is identical in the two languages. Several prosodic contrasts between the two languages interact with their common syntax to produce contrasting surface constituent orders. Differences in the usage of *li* further differentiate the two languages. Thus, apparent syntactic differences turn out to be due to non-syntactic factors, both phonological (prosodic) and pragmatic. The rather striking contrasts between Macedonian and Bulgarian questions are located not in the syntax but in other grammar components which significantly affect the surface form of the sentence.

The paper has the following organization: after a description of some word-order differences between Macedonian and Bulgarian (Section 2), we present an analysis unifying the syntactic structure of *li* questions in the two languages (Section 3). In Section 4 we provide a sketch of the prosodic systems of the two languages. Then (Section 5) we discuss several prosodic peculiarities in the two languages which interact with *li* placement to obscure its syntactic uniformity. In Macedonian two lexical words, under certain circumstances, share a single word stress (Section 5.1). In Bulgarian the negative element *ne* causes the following element, even an otherwise-unstressable clitic, to be stressed (Section 5.2). Also in Bulgarian, pronominal and auxiliary clitics are prohibited from being initial (Section 5.3). In both languages, constructions with non-clitic auxiliaries or participle fronting complicate the word-order picture (Section 5.4). Finally, in Section 6, we show how pragmatic factors limit the acceptability of *li* in Macedonian.

Unless otherwise specified, the data we consider are from Standard Macedonian and Bulgarian. Regional and individual differences, as well as discrepancies between the prescriptive standard and actual usage, are noted where pertinent; see Comrie (1997) for interesting discussion of the role of prescriptivism in Slavic linguistics.

2. BACKGROUND

In both Macedonian and Bulgarian, as in several other Slavic languages, yes/no questions may be formed by adding *li* to a declarative sentence. At first glance, the position of *li* in some Macedonian questions appears radically different from its position in Bulgarian. Examples (1) and (2) display precisely opposite patterns of grammatical word order for affirmative yes/no questions in the two languages, while (3) and (4) show the same disparity in negative questions, and (5) and (6) in conditional questions.[1] (Throughout the paper *li* is boldfaced in examples.)

(1)a.　Go　vide　**li**?　　　　　　　　　　　　(Macedonian)

　　　　him_{ACC} saw_{3.SG} Q

　b.　*Vide **li** go?

　　　　Did (s)he go?

(2)a.　*Go vidja **li**?　　　　　　　　　　　　(Bulgarian)

　b.　Vidja　**li**　go?

　　　　saw_{3.SG} Q him_{ACC}

　　　　Did (s)he see him?

(3)a.　Ne　go　vide　**li**?　　　　　　　　　　(Macedonian)

　　　　not him_{ACC} saw_{2.SG} Q

　b.　*Ne go **li** vide?

　c.　Ne **li** go vide?

　　　　Didn't (s)he see him?

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[1] Bulgarian (2a), (4a) are acceptable as echo questions, but not as normal yes/no questions; see, e.g., Rudin (1997a). Not all Macedonian speakers accept (3c). Olga Tomić (p.c.) suggests that confusion with *neli* 'is it not the case that …?' may be involved; see Section 5.1 below. In (6) we include the clitic *gi*, which 'doubles' *parite* 'the money (pl.)', for the sake of parallelism with the Macedonian examples in (5). Clitic doubling is obligatory in Macedonian with definite or specific objects, but generally optional and colloquial in Bulgarian.

(4)a. *Ne go vidja li?   (Bulgarian)

b. Ne go **li** vidja?
not him_ACC Q saw_3.SG

c. *Ne **li** go vidja?
Didn't (s)he see him?

(5)a. Si mu gi dal **li**   (Macedonian)
are_2.SG him_DAT them_ACC given_M.SG Q
parite?
money + the

b. *Dal **li** si mu gi parite?
Have you given him the money?

(6)a. *Si mu (gi) dal **li** parite?   (Bulgarian)

b. Dal **li** si mu (gi) parite?
given_M.SG Q are_2.SG him_DAT them_ACC money + the
Have you given him the money?

Examples (1) through (6) all involve pronominal or auxiliary clitics.[2] In li questions without such clitics, the strikingly divergent pattern of grammatical word orders generally disappears; compare the (a) and (b) versions of (7) through (9). ALL-CAPS glosses indicate focus throughout the paper.

(7)a. Kniga **li** čita Anna?   (Macedonian)
book Q read_3.SG Anna?

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2 The clitics most relevant for li placement are the 'be' auxiliaries and accusative and dative pronominals in the following table. Forms separated by a slash are masculine-neuter to the left of the slash; feminine to the right ('him-it/her'). R = reflexive.

Macedonian

	1s	2s	3s	1p	2p	3p	R
'be'	sum	si	e	sme	ste	se	
ACC	me	te	go/ja	ne	ve	gi	se
DAT	mi	ti	mu/ì	ni	vi	im	si

Bulgarian

	1s	2s	3s	1p	2p	3p	R
'be'	săm	si	e	sme	ste	sá	
ACC	me	te	go/ja	ni	vi	gi	se
DAT	mi	ti	mu/ì	ni	vi	im	si

See Avgustinova (1994) and Hauge (1976) for full details on the Bulgarian clitic system; Tomić (1996a, 1996b) for Macedonian.

b. Kniga **li** čete Anna?   (Bulgarian)
book Q read_3.SG Anna?
Is Anna reading A BOOK?

(8)a. Zboruvate **li** angliski?   (Macedonian)
speak_2.PL Q English

b. Govorite **li** anglijski?   (Bulgarian)
speak_2.PL Q English
Do you speak English?

(9)a. Od dve poluistini stanuva **li** celina?   (Macedonian)
from two half-truths becomes_3.SG Q whole

b. Ot dve poluistini stava **li** edna cjala?   (Bulgarian)
from two half-truths becomes_3.SG Q one whole
Do two half truths make a whole one?

At this point one might posit differences in the placement of li relative to other clitics, or different clitic positions in Macedonian and Bulgarian. This is unnecessary, however. We argue below that the syntactic position of li is the same in both languages, not only in cases like (7) through (9) where it appears identical, but also in (1) through (6). The syntactic relation of li to the verb-adjacent clitic cluster is identical in two languages. Word order in li questions with clitics does differ between the two languages, but for prosodic, not syntactic reasons.

3. SYNTACTIC ANALYSIS

We adopt the analysis proposed by Rudin et al. (1997) and Izvorski et al. (1997) for Bulgarian li questions, which straightforwardly accounts for the corresponding Macedonian construction as well.[3] In fact, the proposed

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3 Much of this analysis also holds for other Slavic languages. Russian has both XP + li and V + li structures (King 1995, pp. 137–53; Rudin et al. 1997), though V + li is infrequent in matrix clauses. Cf. also Billings (1996) for a phrasal-affix analysis of Russian li. Slovenian no longer uses li, though SSKG (1975, p. 600) reports archaic examples, including one apparently clause-initial example of li. Toman (1996, pp. 508–09) reports that Czech is limited to the V + li structure. Whereas Croatian Church Slavonic texts

structure is arguably clearer in Macedonian, where it is not obscured by prosodically-based word-order constraints.

Under the Izvorski/King/Rudin analysis, *li* is a yes/no-interrogative particle which can also check a focus feature. As an enclitic, it follows a stressed element. Following King (1996), Rivero (1993), and Rudin (1993), we assume that *li* is in C, as suggested both by its interrogative clause-typing function and its nonoccurrence with other complementizers, in both languages. When C is [+ focus], it checks a [+ focus] feature on a fronted focus phrase in SpecCP (by specifier-head agreement), as in tree (10):

(10)

```
              CP
             /  \
          Spec   C'
                /  \
               C    IP
            
          XP    li
        
        [+focus]
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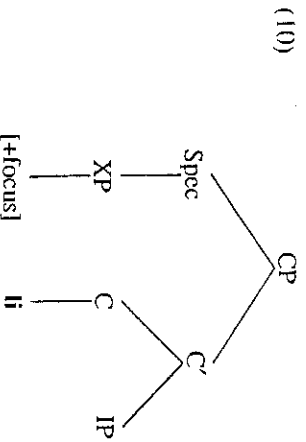
This 'XP + *li*' structure is seen in (7) above, where the focused phrase is *kniga* 'a book' (XP = DP); more examples are given in (11), with a focused PP, and (12), with a more complex focused DP. Brackets mark the focused constituent.[4]

(11) [Niz   gradinata]   **li** šetaše?
         through garden + the Q walked$_{2.SG}$ (Macedonian)

b. [Prez   gradinata]   **li** xodeše?   (Bulgarian)
        through garden + the Q walked$_{2.SG}$
        Were you walking THROUGH THE GARDEN?

do exhibit XP + *li* (Mihaljević 1997), in Modern Serbo-Croatian the use of XP + *li* is extremely limited, apparently to single-word XPs, and not accepted by all speakers; see examples in Rivero (1993, p. 568). Wilder and Ćavar (1994, p. 33) and Tomić (1996b, p. 816). Questions with *li* in Bulgarian have received considerable attention (e.g., Izvorski (1994), King (1995, 1996, 1997b), Legendre (1998), Penčev (1993), Rivero (1993), Rudin (1993, 1997a)). Macedonian *li* questions are discussed by Friedman (1993, pp. 286–87) and Tomić (1996b). Englund (1977) is a corpus study of yes/no questions in both languages, and her (1979) article addresses the usage of yes/no questions.

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[4] In some cases *li* appears after a nominal modifier instead of at the end of a focused DP: Rudin et al. (1997) discuss the Bulgarian example (i); (ii) is from a recent Macedonian newspaper:

(12)a. [Tvojot   malečok bratuček]   **li** ke gi   čita
          your + the little   cousin   Q will them$_{ACC}$ read$_{3.SG}$
          knigite?
          books + the   (Macedonian)

b. [Tvojąt   maläk bratovčed] **li** šte čete
        your + the little   cousin   Q will read$_{3.SG}$
        knigite?
        books + the   (Bulgarian)
        Will YOUR LITTLE COUSIN read the books?

The focused phrase may be preceded by a topic (presumably adjoined to CP) and/or other CP-external material such as conjunctions:

(13)a. Ama ti snošti [niz   gradinata]   **li**
          but you last-night through garden + the Q
          šetaše?
          walked$_{2.SG}$ (Macedonian)

b. Ama ti včera   večer [prez   gradinata] **li**
        but you yesterday evening through garden + the Q
        xodeše?
        walked$_{2.SG}$
        But yesterday evening were you walking THROUGH THE
        GARDEN?   (Bulgarian)

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(i) Novata   **li** kola prodade (ili starata)?
       new + the Q car sold$_{3.SG}$ or old + the
       Did (s)he sell the NEW car (or the old one)?

(ii) Iznamenite   **li** šlcdači na TAT i   na srodnite   piramidi...?
        cheated + the Q savers of   and of similar + the pyramids
        [Is it] the cheated savers of TAT and of similar pyramid schemes...?

This type of construction may be more typical of Macedonian than of Bulgarian (Englund 1977, p. 119). We do not discuss here the conditions under which it occurs. An entire IP can also be focused in Bulgarian, with *li* at the end of the clause and echo interpretation; see note 1.

When no focus phrase precedes *li*, V raises to check *li*'s interrogative feature. In Bulgarian, (14) is the structure of neutral, non-focused questions. In Macedonian, structure (14) exists, but may imply focus on the verb or predicate; the most neutral yes/no question type does not involve *li* at all. Perhaps *li* in Macedonian always checks a focus feature, even in this 'V + *li*' structure. We return to this issue in Section 6. Slightly different proposals, such as that of Izvorski (1995), in which *li* heads FocusP rather than CP, would also be compatible with our claim that, in both Macedonian and Bulgarian, *li* either incorporates a (focused or unfocused) verb or checks a focus feature on a phrase in its specifier.

(14)
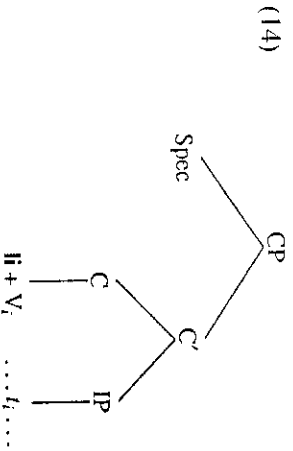
The 'V + *li*' structure has already been seen in both (8) and (9), as well as (1) through (6) above; two further examples are given in (15) and (16):

(15)a. Šetaše **li** niz gradinata? (Macedonian)
　　　walked₂,SG *Q through garden + the*
　　　Were you walking through the garden?

b. Xodeše **li** prez gradinata? (Bulgarian)
　　walked₂,SG *Q through garden + the*
　　Were you walking through the garden?

(16)a. Ke gi **li** čita tvojot malečok bratučed (Macedonian)
　　　will them read₃,SG Q your + the little cousin
　　　knigite?
　　　books + the
　　　Will your little cousin read the books?

b. Šte čete **li** tvojat malăk bratovčed (Bulgarian)
　　will read₃,SG Q your + the little cousin
　　knigite?
　　books + the
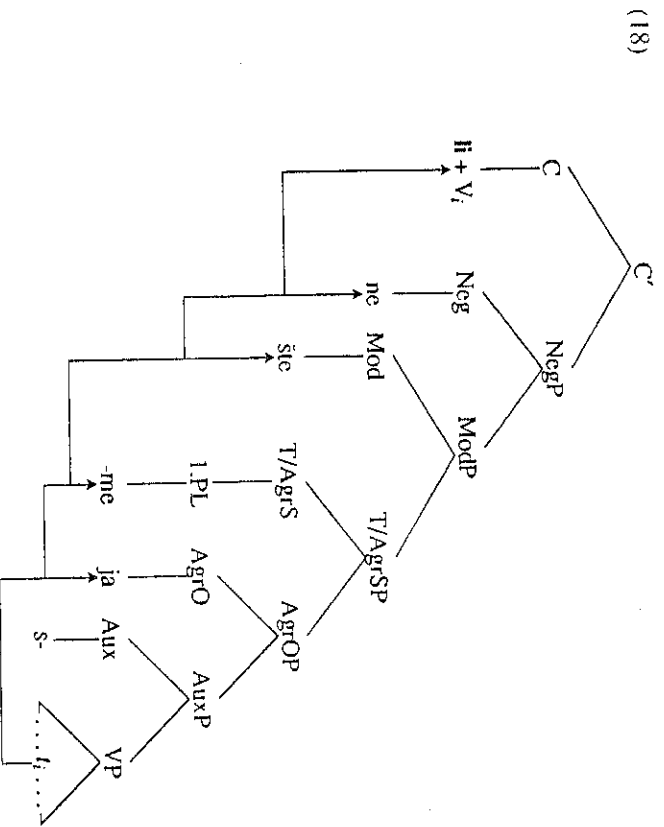　　Will your little cousin read the books?

Example (9) shows that, like the XP + *li* construction, V + *li* may be preceded by a topic phrase; the PP *od dve polutistini* in this case. Note that the portion of tree (14) labeled 'li + V$_i$' is realized in these sentences as verb **followed** by *li* (*šetaše li* in (15a) for instance). For reasons which will become clear below, we analyze this as right-adjunction of V to *li*, followed by prosodic inversion (Halpern 1995); see also King (1997b)), rather than by left-adjunction. Another possibility is that V might not incorporate syntactically into C at all, but move only as high as the highest functional head within IP, right-adjacent to *li* in C. Prosodic inversion would operate in the same way described below. The choice between this and the right-adjunction analysis is immaterial for the rest of our analysis; we assume right adjunction for the sake of concreteness.

The verb raises through a series of functional heads located between V and C in the tree, incorporating and carrying along with it tense, agreement, modality, negation, and other functional categories. In (16) a modal, *ke/šte* 'will', is part of the complex V whose raising path is shown in (17):

(17)
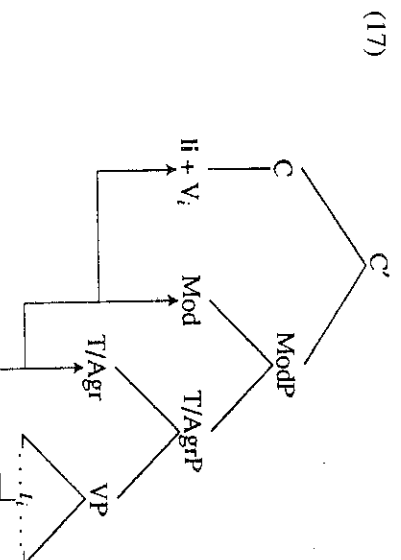
Other functional projections through which V raises include Neg, Aux, and object-agreement categories, headed by the negative particle *ne*, auxiliary clitics, and pronominal clitic objects, respectively. (See Rudin (1997b) on pronominal clitics as object agreement.) A yes/no question containing these categories thus has roughly the structure (18); the raised V incorporates all the heads through which it has passed, resulting in a complex verbal head adjoined to *li* in C, shown in (19a). (The combination of *ne* 'not' and *šte* 'will' is "rather bookish" (Hauge 1976, p. 18) and usually replaced in contemporary Bulgarian by *njama* 'won't'. We use the less common form here for clarity of reference to the tree diagram. In Macedonian both *ne ke* 'will not' and *nema* 'won't' are commonly used.) Prosodic inversion

then repositions *li* with respect to this verbal complex; in the case of (19b) *li* ends up within the verbal complex.

(18)

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                    C'
            li + V_i    C
                    C       NegP
                        Neg       ModP
                        ne    Mod       T/AgrSP
                             šte   T/AgrS       AgrOP
                                  1.PL    AgrO       AuxP
                                  -me     ja    Aux       VP
                                              s-    ....ti....
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(19)a. [_C' **li** + [_ne šte sme ja pokanili]]

b. Ne šte **li** sme   ja   pokanili?　　　　(Bulgarian)
    not will Q be_1.PL her_ACC invited_PL
    Will we not have invited her?

The problematic cases with different surface word orders in Macedonian and Bulgarian, in (1) through (6), are precisely those which contain pronominal or auxiliary clitics or negation. We claim that these do have a syntactic structure like (17) or (18); that is, in spite of the fact that *li* does not always follow the verb, they are all instances of the V + *li* construction first shown in (14). (Constituent order differs between the two languages only in the V + *li* construction. The XP + *li* construction does not differ except in usage; see Section 6 below.) The different surface outcomes of the C node containing *li* and the complex raised verb in Macedonian and Bulgarian are accounted for by several prosodic factors, relevant to one language or the other, which affect the operation of prosodic inversion differently in the two languages, as we will see in the following sections.

4. THE PROSODIC/CLITIC SYSTEMS OF MACEDONIAN AND BULGARIAN

Before discussing the prosodic phenomena affecting the position of *li*, we provide some background on the prosodic and clitic systems of Macedonian and Bulgarian. The two languages' prosodic systems, especially the stress system within the word, differ significantly. Macedonian has regular antepenultimate stress (and initial stress in mono- or disyllabic words),[5] while in Bulgarian any syllable may be stressed. This contrast is illustrated in (20). (Examples in Sections 4 and 5 show clitics in italics and stressed syllables in ALL-CAPS.)

(20) STOLbište   MOmiče   KAranfil   (Macedonian)
      STÂLbište   moMÍče   karamFIL   (Bulgarian)
      staircase   girl   carnation

Furthermore, the addition of clitics to the end of a word in Macedonian may affect stress placement, shifting it to the antepenultimate syllable of the Prosodic Word (PrWd), including any clitics, while in Bulgarian addition of clitics does not generally affect the position of stress. In (21) we see that the addition of each monosyllabic clitic shifts the stress rightward by one syllable.

(21)a. DOnesi   Bring!   (Macedonian)

b. doNEsi *go*   Bring it_ACC!

c. doneSI *mi go* Bring me_DAT it_ACC!

On the other hand, in Bulgarian stress normally remains constant when suffixes and clitics are added:

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[5] The distinction between true antepenultimate stress and initial (with less than trisyllabic PrWds) is not just a descriptive device. Koneski (1967, pp. 140–41), discussing the standard language, reports that stressed syllables may be distinctly longer when initial in mono- and disyllabic words. Hendriks (1976) describes a western dialect of Macedonian in which the inventory of vocalic phonemes differs between these two environments. See Baerman (1998), Comrie (1976), Franks (1987, 1989, 1991), Garde (1968), Halle and Kenstowicz (1991), Hammond (1989), Hendricks (1976), Kager (1993), and Kenstowicz (1991) for discussion of theoretical issues surrounding antepenultimate stress, a rather exotic pattern cross-linguistically. These works also discuss exceptional words, mostly borrowings, with penultimate or final stress.

(22)a. doneSI   bring   (Bulgarian)

b. doneSI go   Bring it$_{ACC}$!

c. doneSI mi go   Bring me$_{DAT}$ it$_{ACC}$!

Unlike other enclitics, *li* is outside the trisyllabic stress window in Macedonian and thus does not pull the stress rightward.[6] Compare (23) to (21):

(23)a. doNEsuvaš   you are bringing

b. doNEsuvaš *li*? are you bringing?   (Macedonian)

Macedonian and Bulgarian have very similar clitic inventories, and the basic positions of each type of clitic are identical in the two languages. One group of clitics is located within DP.[7] A second group of clitics, consisting of clitic object pronouns, auxiliaries, and modal particles, is adjacent to V. It is the latter group that is important for the placement of *li*, so our discussion is limited to them. In Macedonian, these clausal clitics are always proclitic to the tensed verb, as in (24), even if this places them at the beginning of the sentence.[8] In Bulgarian, the clausal clitics occupy

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[6] This fact has been missed in several works on Macedonian clitic prosody, including Elson (1976) and Franks (1989). Other studies discuss Macedonian *li* without marking stress (Englund 1977, pp. 119–120; Friedman 1993, p. 287; Tomić 1996a, p. 511). Tomić (1996b, p. 387) notes that in V + *li* sentences "the stress falls on the antepenultimate syllable of the clitics + V complex", which is accurate if "clitics + V complex" excludes *li*. Sawicka and Spasov (1997, pp. 213–14) mention that *li* fails to cause stress shift when enclitic to a verb but do not discuss other contexts, such as XP + *li*.

[7] These nominal (definite article and possessive) clitics follow the first nominal constituent of the DP (including adjectives and quantifiers but not adverbs or PPs). The use of possessive clitics is more circumscribed in Macedonian than in Bulgarian, but their syntactic position is identical in the two languages. For details see Baerman and Billings (1998), Elson (1976), Minova-Gurkova (1994, p. 57), Scatton (1984, pp. 427–30) and Tomić (1996a). This group of clitics, being DP-internal, does not interact with *li* at all, *pace* Halpern (1995, pp. 227–28), who devotes an appendix to "overlapping domains" when the leading edges of a clause and an NP coincide. We disagree with his assumption that the clausal and NP clitics in Bulgarian are second-position clitics whose domains "overlap". If an XP is fronted to SpecCP, this entire XP, including any associated clitics, precedes the inflected verb with its clitics (and also precedes *li*, located in C). Halpern also discusses briefly the apparent ability of possessive clitics to appear out of their NP, within the clausal clitic cluster (cf. also Norman 1971). This construction probably involves the (homophonous) dative rather than the possessive clitic.

[8] The clausal clitics generally follow rather than precede non-tensed verb forms such as imperatives in Macedonian. Since *li* does not cooccur with these forms, we do not discuss them here; see Baerman and Billings (1998).

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the same position, except that the auxiliary and pronominal clitics cannot be initial. The word-order inversion that occurs when no preceding word is present is discussed in Section 5.3 below.

(24)a. (JAS) *sum*   *ti*   *go*   KAzal.   (Macedonian)
   I   am$_{1.SG}$ you$_{DAT.SG}$ it$_{ACC}$ said$_{M.SG}$

b. AZ *sâm*   *ti*   *go*   KAzal.   (Bulgarian)
   I   am$_{1.SG}$ you$_{DAT.SG}$ it$_{ACC}$ said$_{M.SG}$

I told it to you.

Note that proclitics, unlike enclitics, do not affect the place of stress on the verb in Macedonian.[9] A one- or two-syllable clitic verb keeps the stress on its first syllable, instead of shifting it onto a clitic which would be the antepenultimate syllable.[10]

(25)a. *mi*   *go*   DAle   (cf. *mi GO dale)   (Macedonian)
   me$_{DAT}$ it$_{ACC}$ gave$_{PL}$

They gave it to me.

b. *mi*   *go*   DAL   (cf. *MI go dal)
   me$_{DAT}$ it$_{ACC}$ gave$_{M.SG}$

He gave it to me.

One invariably pre-verbal element, the negative particle *ne*, may be lexically accented in Macedonian,[11] as shown in (26). This lexically accented

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[9] Tomić (1996b, p. 837, fn. 34) claims that in Macedonian "clitics [...] form phonological words (with common unique antepenultimate stress) with the lexical words following them". This is inaccurate, as examples (25a–b) show.

[10] This asymmetry also occurs in Romance languages; cf. Peperkamp (1996) for a summary of the literature on the dual-position clitics in varieties of Italian. Specifically, Macedonian appears to be very similar to certain Lucanian dialects, in which words show stress on one of the last three syllables and added enclitics or suffixes regularize the stress to penultimate position. Macedonian has words with stresses in the same final-trisyllabic window, with the addition of suffixes and non-*li* enclitics regularizing the stress to antepenultimate position. Garde (1968, p. 32) and Kenstowicz (1991) also point out this Macedonian-Italian similarity.

[11] This is a major assertion of Garde (1968), though one of our Macedonian informants does not accept stressed *ne*. Anderson (1996, pp. 188–89) considers Macedonian *ne* to have different constraints on its positioning than clitics, without commenting on its prosodic properties.

ne is emphatic; we discuss two other, more neutral, negative stress patterns in Section 5.1 below. Although stressed *ne* is pragmatically marked, we introduce it first for expository reasons.

(26)   NE *mi*   *go*   DAle.   (Macedonian)
　　　 not me$_{DAT}$ *it*$_{ACC}$ *gave*$_{PL}$
　　　 They didn't give it to me.

Example (26) does not show clearly which accented word, *ne* or *dale*, hosts the clitics. Two plausible prosodic organizations are shown in (27a–b):

(27)a.   [NE] [*mi go* DAle]

　　b.   [NE *mi go*] [DAle]

There are reasons to favor the bracketing in (27a). First, the clitics form a syntactic unit with the tensed verb; the null hypothesis is that the prosodic and syntactic bracketings match. Secondly, when the clitics are clause-initial, as in (25), the only possible prosodic host is the verb. However, these arguments are inconclusive. Examples like (25) might simply be stray adjunction; that is, clitics with a lexically accented word neighbor on only one side are hosted prosodically by that word regardless of their normal directionality.

The mirror image of this situation, that is, a string of clitics with a non-clitic only on the left, instead of only on the right, exists in (28a), a sentence which has been cited repeatedly in the literature on Macedonian prosody, and (28b).[12]

(28)a.   kamo   *MI*   *ti*   *go*   (Macedonian)
　　　　 where-to me$_{DAT}$ *you*$_{DAT}$ *it*$_{ACC}$
　　　　 Where (should) I (put) it for you?   (Elson (1993, p. 157))
　　　　 Where did that thing of yours get to on me?
　　　　 (Franks (1989, p. 561))

　　b.   eVE   *ti*   *go*
　　　　 voila you$_{DAT}$ *it*$_{ACC}$
　　　　 Here it is (for you).

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[12] Both Elson and Franks apparently got this example from Koneski (1967, p. 163), which does not provide glosses. Our informants have translated it variously as "Where is it, my dear little one?" or "Where is it, my dear little one?" and commented that it is stylistically odd; perhaps something one would say to a small child. See Baerman and Billings (1998) for further discussion of the stress of this example.

Here, the only lexically accented word is WH-interrogative *kamo* or presentative *eve*; there is no overt verb. The enclitics shift stress to the third syllable from the end; entirely off the lexical word in the case of (28a). This suggests that clitics may be prosodically hosted by the preceding lexically accented word, like (25a–b), however, these could also represent stray adjunction.[13] What we need to settle the matter is an example like (26), but with at least three syllables' worth of verbal clitics between the two lexically accented words. Sentence (29a) is such an example, and its stress pattern clearly shows that the bracketing of (27a), applied in (29b), is correct:[14]

(29)a.   NE *sme*   *mu*   *go*   DAle.
　　　　 not are$_{1.PL}$ *him*$_{DAT}$ *it*$_{ACC}$ *given*$_{PL}$
　　　　 We didn't give it to him.

　　b.   [NE] [sme mu go DAle]
　　　　 We didn't give it to him.

The three intervening clitics fail to draw stress off of *ne*, indicating that the bracketing is as shown, since prosodic enclitics (but not proclitics) affect stress.

To summarize this section, the two languages differ significantly in their word prosody. Macedonian has regular antepenultimate word stress, while in Bulgarian stress is lexically encoded. Enclitics in Macedonian affect the position of stress on their host and can serve as a diagnostic of the right edge of a Prosodic Word.

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[13] In fact, the examples in (28a–b) probably do not involve stray adjunction. Only in certain types of words is stress affected by verbal enclitics: imperatives (21a–c), WH-interrogative stems (28a), imperative-like elements such as *eve* (28b), and, optionally, WH-verbal adverbs. Verbal clitics do not affect stress in other types of preceding predicate word, including participles, adjectives, and nouns.

[14] Elson (1993, pp. 152–53) reports the following example (stress notation and gloss modified), stating that the three clitics are hosted prosodically by *ne*.

(i)   ne *SME*   *mu*   *go*   ZEle.
　　　 not are$_{1.PL}$ *him*$_{DAT}$ *it*$_{ACC}$ *taken*$_{PL}$
　　　 We didn't take it from him.

Our informants reject example (i), preferring the stress pattern in (29). Elson attributes his data as follows: "Items cited for illustrative purposes *or their models*, are from Lunt 1952: 21–25, Koneski 1967: 139–210, or Garde 1968" (p. 157, n. 1; emphasis added). However, (i) with stress as shown is not actually given in any of these sources. Elson's assumption, based perhaps on the notation in Garde (1968, p. 36), that the clitics are hosted by *ne*, is also contradicted by our data on *li*-insertion in Section 5.1 below. Still, we leave open the possibility that (i) is attested for some speaker or dialect of Macedonian.

5. PROSODIC DISTINCTIONS BETWEEN MACEDONIAN AND
BULGARIAN

We turn now to a closer examination of several prosodic differences be-
tween Macedonian and Bulgarian, phenomena which occur in only one
of the two languages and which differentially affect the placement of *li*. In
Section 5.1 we consider a process unique to Macedonian, the fusion of two
accented words into a single PrWd or Enlarged Stress Domain. In Section
5.2 we take up the prosodic properties of the Bulgarian negative element
ne, which idiosyncratically stresses any following constituent. In Section
5.3 we discuss the restriction against initial auxiliary and pronominal cl-
itics in Bulgarian. Finally, in Section 5.4 we outline differences due to
the clitic vs. non-clitic status of particular auxiliaries and issues involving
participle fronting.

5.1. *Enlarged Stress Domain in Macedonian*

We observe above (in Section 4) that *ne* in Macedonian can be lexically
accented. It is also possible, however, for *ne* and the following verb to
share a single PrWd stress; this possibility of stressing both lexical words
as one PrWd accounts for the accessibility of both (3a) and (3c) above, and
results in contrasts like (30):

(30)a. [NE] *li* SAkaš   *da* Odiš?   (Macedonian)
        not Q *want₂,ₛɢ to go₂,ₛɢ*
        Do you (really) not want to go?

   b. [NE sakaš]   *li da* Odiš?   (Macedonian)
       not want₂,ₛɢ   Q to go₂,ₛɢ
       Don't you want to go?

In (30a) *li* follows the independent PrWd [NE]. In (30b), however, [NE
sakaš] is a single PrWd and *li* follows it. Yet a third stress pattern for
negative sentences in Macedonian, with *ne* as an inherently unaccented
clitic, is introduced below (see (39) and Section 5.2); for now we restrict
our attention to the two patterns in (30).

The construction with two lexically accented words stressed as a single
PrWd has been called "accentual units" (Alexander 1995, translating the
Macedonian term *akcentski celosti*); "collocational stress" (Elson 1993),
and "enlarged stress domain" (Franks 1987). We adopt the last of these,
abbreviated ESD. Word sequences which allow ESD include adjective +

noun (31), WH-interrogative + verb (32), and negation + verb (33). In the
(a) examples each lexically accented word receives the predictable stress
(antepenult if at least trisyllabic; otherwise, initial).[15] In the (b) exam-
ples, however, the entire two-word domain receives a single stress, on the
antepenult.[16] PrWd boundaries are shown with brackets.

	Without ESD			With ESD	
(31)a.	[LEvata]	[NOga]	b.	[levaTA	noga]
	left + the	*foot*		*left + the foot*	
	the left foot			the left foot	

(32)a. [KOJ] [REče]   b. [KOJ   reče]
        who_NOM said₃,ₛɢ   *who_NOM said₃,ₛɢ*

(33)a. [NE] [mi   go   DAle]   b. [ne mi   GO   dale]
        not   me_DAT it_ACC gave_PL   *not me_DAT it_ACC gave_PL*
        They DIDN'T give it to me.   They didn't give it to me.

Additionally, as (31b) and (33b) show, clitics can appear between the lexi-
cally accented words and be included in the ESD. In (31) the definite article

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[15] Two peculiarities of ESD occur when the second lexically stressed stem is monosyl-
labic: The first, which Franks (1989) calls the "monosyllabic-head effect", prevents the
stress from preceding the beginning of the second stem by more than one syllable, as
shown in (i). The second is an exception to the monosyllabic-head effect just in case the
entire ESD consists of exactly three syllables, as shown in (ii).

(i)   *ne   sum mu GO zel*.
        not am him it taken
        I didn't take it from him.   (cf. *ne sum MU go zel*)
                                                    [Lunt (1952, p. 23)]

(ii)   *ne   BI   dal.   or NE bi   dal.*
        not would given   not would given
        (He) would not have given.   [= ex. 18a in Franks (1989, p. 559)]

These also have non-ESD variants: NE *sum mu go* ZEL, NE *bi* DAL.

[16] ESD forms are quite rare. In Contemporary Standard Macedonian, being consid-
ered archaic or dialectal. In educated urban speech ESD forms tend to be little used, and
in some cases are stigmatized, in spite of being codified in grammars of literary Mace-
donian (Koneski 1952, Lunt 1952). We cite examples (31)–(33) nonetheless to show the
possible extent of ESD in the language. ESD forms are primarily a Western Macedonian
phenomenon; see (38) below.

-ta is enclitic to the first constituent of the noun phrase; in (33) the clitics *mi* and *go* are syntactically ordered before the tensed verb. The environment in (32) also allows medial clitics.

As argued in Section 4, the prosodic host of the clitics in a negative construction like (33a) is the verb. We repeat example (29) as (34a), with its ESD counterpart in (34b). The bracketing represents prosodic organization.

(34)a. [NE] |sme mu go DAle]. Without ESD

 not are$_{1,PL}$ him$_{DAT}$ it$_{ACC}$ given$_{PL}$.

b. [ne sme mu GO dale]. With ESD

 We didn't give it to him.

The bracketing in (34a–b) can be corroborated by turning these sentences into *li* questions, as in (35) and (36):

(35)a. [NE] *li* |sme mu go DAle?] Without ESD

 not Q are$_{1,PL}$ him$_{DAT}$ it$_{ACC}$ gave$_{PL}$.

b. *ne sme mu GO *li* dale? With ESD

(36)a. *NE sme mu go *li* DAle? Without ESD

b. [ne sme mu GO dale] *li*? With ESD

 Didn't we give it to him?

The position of *li* depends on whether there is ESD or not. In the grammatical non-ESD version (35a), *li* follows the first PrWd domain, [NE]. The grammatical ESD version (36b) comprises a single PrWd domain, and *li* follows the entire string. No other orders are possible.[17] Three hypotheses about

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17 The following are also ungrammatical: in (i) *li* follows two PrWds, while in (ii) *li* follows no PrWd – both instances of illicit inversion.

(i) *[NE]|sme mu go DAle]*li* (ii) *[ne *li* sme mu GO dale]

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the placement of *li* are plausible within a prosodic-inversion account such as Halpern (1995); cf. Section 3:

(37)a. Hypothesis A:

 li follows first PrWd **stress** (Wackernagel's Law).

b. Hypothesis B:

 li follows first PrWd **domain**, assuming a non-ESD PrWd bracketing consistent with (27b) above:

 [NE *sme mu go*] [DAle].

c. Hypothesis C:

 li follows first PrWd **domain**, assuming a non-ESD PrWd bracketing consistent with (27a) above:

 [NE] |*sme mu go* DAle].

Hypothesis A predicts that *li* will appear at the first available syntactic boundary following the first word stress; it correctly predicts the form in (35a), but incorrectly predicts (35b). Hypothesis B correctly predicts (36b), but incorrectly predicts (36a). Only Hypothesis C correctly predicts both attested forms: (35a) and (36b). Questions with *li* thus corroborate our analysis above in (29) and (34).

As mentioned above (note 1), there is some controversy over whether *ne* + *li* is simply the question particle *neli* 'isn't it so?'. Minova-Ǵurkova (1987, p. 31) and Tomić (1996b, p. 836, fn. 33) both claim that sentences like (35a), though found in contemporary literature, are errors; in their view the sentence should be *Neli sme mu go dale?* 'We gave it to him, didn't we?'. Most of our informants, however, accept *ne* + *li* sentences as non-tag questions. The roots of this disagreement probably lie in the complex areal pattern of prosodic systems in Macedonian. Alexander (1991) gives the following dialect division of accentuation of negated VPs in Eastern South Slavic (i.e., the Macedonian–Bulgarian dialect continuum):

(38)a. West ne GO gledam. ne go RAZbiram.

 NE go GLEdam. NE go RAZbiram.

b. Central NE go GLEdam. NE go razBIram.

c. East ne GO GLEdam. ne GO razBIram.

 not him$_{ACC}$ see$_{1,SG}$ *not* him$_{ACC}$ understand$_{1,SG}$

 I don't see him I don't understand him

The West (= Western Macedonian dialects) has ESD stress. The Central Balkan Slavic area (= Eastern Macedonian dialects) has a non-ESD stress pattern and lexical stress on *ne*. The East (= Bulgarian) has no ESD and stresses the clitic following *ne* (see Section 5.2).[18] Speakers of western dialect background, who may not recognize non-ESD negative forms, may interpret *ne + li* as *neli*. Although not all speakers use them, however, both ESD and non-ESD forms (and *ne li* as well as *neli*) are available in Standard Macedonian. Englund (1977, p. 113), discussing the sentence *Ne li go poznavate?* 'Don't you know him?' notes that here "*ne li* does not have the same meaning as the Q[uestion] P[article] *neli*, which is quite clear from the context". An anonymous reviewer provided us with several additional examples from contemporary written Macedonian on the World Wide Web in which *ne li* clearly does not mean 'isn't it the case that'.[19]

A complicating factor in the analysis of stress in negatives is the existence of a third pattern with *ne* as an unstressed proclitic. Koneski (1967, p. 167) lists the following options for stress with negated tensed verbs in Macedonian:

(39)a. *ne* and verb have separate stress (used when negation is emphasized)[20] [= "non-ESD" in the discussion above]

b. ESD stress (semantically unmarked)

c. proclitic *ne*; stress only on verb ("presupposes a certain consequence")

Koneski describes a state of affairs native to certain western dialects on which the standard language is based, but which has gained only limited acceptance among Macedonian speakers outside this western dialect area. In fact, some speakers do not use the ESD pattern, which Koneski considers the unmarked choice. As far as we are aware, all dialects do use both patterns (39a) and (39c), the latter resulting in the same position for

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[18] See Baerman (1998) and references therein for discussion of this dialect continuum's word-stress variation, e.g., at what point in the westward progression *razBiram* in (38b-c) becomes regularized as *RAZbiram* in (38a).

[19] See also example (83) below.

[20] The phonological literature on ESD (Elson 1993, Garde 1968, Hendricks 1976) generally agrees that non-ESD is used when semantically emphasizing *ne* or WH. In certain ESD environments *ne* or WH is the only stressed constituent; cf. (30b); however, this element is not interpreted as semantically emphasized.

li in negative questions as ESD. Compare (40a) to (36b), repeated here as (40b):

(40)a. *ne   sme   mu   go   DAle   li?*   (Macedonian)
not are$_{1PL}$ him$_{DAT}$ it$_{ACC}$ gave$_{PL}$ Q

b. *ne sme mu GO dale li?*
Didn't we give it to him?

A similar range of stress patterns is available for WH-word + verb; see (32b) for the ESD option. But only non-ESD stress is possible in questions in which *li* cooccurs with WH, lending an emphatic 'on earth' or 'the hell' meaning, as in (41a).[21] The ESD and clitic-WH counterparts of this example, (41b-c), are ungrammatical, although *li* in both cases follows the first PrWd:

(41)a. [ŠTO] *li* [NAJde] [VO nego]?!   (Macedonian)
what Q found$_{3,SG}$ in him$_{ACC}$
Whatever did (s)he see in him?!

b. *[ŠTO najde] *li* [VO nego]?!

c. *[što NAJde] *li* [VO nego]?!

The ungrammaticality of (41b-c) is not prosodic, but rather due to other factors. As Elson (1993, p. 158, n. 4) points out, while all other ESD pairs in (31) through (33) constitute a syntactic constituent, WH + verb does not. That problem aside, (41b-c) are pragmatically deviant. Since WH + verb ESD and clitic WH both imply lack of semantic emphasis on the WH element, they are incompatible with WH + *li*, which specifically indicates semantic emphasis on the WH element. Furthermore, question words are always focused and the remainder of the WH-question clause presupposed (i.e., *Who did you see?* presupposes *You saw someone*). This focus-presupposition structure is characteristic of the XP + *li* construction in (10), as argued in detail by Rudin et al. (1997). It would be pragmatically bizarre to have a WH-question with the V + *li* structure in (14), which is what (41b-c) appear to be.

To summarize this subsection, we have shown that a stress domain in Macedonian can be enlarged, allowing certain pairs of lexically accented

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[21] See Rudin (1997a) on WH + *li* in Bulgarian. One Macedonian informant rejected all WH + *li* questions.

words, along with any clitics between them, to be stressed as one PrWd. The addition of *li* to ESD and non-ESD environments makes it clear that *li* follows the first stress **domain**, passing up the chance to appear immediately after the stress **peak**. The interaction of optional ESD and placement of *li* after the first PrWd domain accounts for the range of positions of *li* in Macedonian; lack of ESD in Bulgarian explains one constituent-order distinction between the two languages.

5.2. *Negative Stress Shift in Bulgarian*

The second prosodic process we discuss has to do with the unique properties of the sentential negator *ne* in Bulgarian. Although it never bears stress itself, *ne* is invariably followed by a stressed constituent. If the element following *ne* is the verb, then *ne* behaves like a proclitic; cf. proclitic *šte* in (42b):

(42)a. ne valí.
neg rain$_{3.SG}$
It isn't raining.

b. šte valí.
will rain$_{3.SG}$
It will rain.

(Bulgarian)

If however, one or more clitics intervene between *ne* and the verb, then the first clitic after *ne* bears stress:

(43)a. ne ME bolí.
not me$_{ACC}$ hurts$_{3.SG}$
It doesn't hurt me.

b. ne MI se STRUva, če ...
not me$_{DAT}$ REFL seems$_{3.SG}$ that
It doesn't seem to me that ...

c. ne SÂM ti go DAla.
not am$_{1.SG}$ you$_{DAT.SG}$ it$_{ACC}$ given$_{F.SG}$
I haven't given it to you.

(Bulgarian)

The consensus in the literature is that *ne* forms a prosodic word with the following constituent:²²

(44)a. [ne ME][boLÍ]

b. [ne MI] se [STRUva]

c. [ne SÂM] ti go [DAla]

We delay until example (48) below discussion of the prosodic affiliation of the unbracketed clitics in (44b–c).

Various models have been proposed to explain this seeming hybrid property of *ne*; see Halpern (1995, pp. 216–17) and Legendre (1998) for two differing approaches. The precise model (including whether *ne* is a clitic or inherently stressed) is not relevant to the current discussion, aside from the PrWd bracketing in (44). The relevance of (44) for *li* questions derives from the role of stress in determining the position of *li*; see, e.g., Hauge (1976); Izvorski (1994); Izvorski et al. (1997); King (1995, 1997b); Rudin (1993, 1997a); Rudin et al. (1997); and Tomić (1996b). Since *li* inverts past the first stressed element of the verb word, *li* in Bulgarian is automatically placed after the constituent immediately following *ne*. In Macedonian, however, *ne* does not induce stress on the following element, and thus does not influence the placement of *li* in the same way. So, when *li* encliticizes to the first PrWd of the verb word, just as in Bulgarian, the result is different: It ends up immediately after *ne* itself (in non-ESD structures) or after the verb (in ESDs or if *ne* is proclitic).

We have already seen examples of differing word orders in negative questions with clitics in (3) and (4) above; two more sets of negative questions are given in (45) and (46) (brackets indicate prosodic words):

(45)a. [NE] *li* [sum ti go
not Q am$_{1.SG}$ you$_{DAT.SG}$ it$_{ACC}$
DAla]?
given$_{F.SG}$
(Macedonian, ESD)

b. [ne sum ti GO dala] *li*? (Macedonian, non-ESD)
not am$_{1.SG}$ you$_{DAT.SG}$ it$_{ACC}$ given$_{F.SG}$ Q

²² Dimitrova-Vulchanova (1995, p. 62) also notes that *ne* and a following clitic form a prosodic unit, but ignores this fact in her analysis of *ne* and *li* (p. 69). Tomić (1996b, p. 848) uses this prosodic fact as evidence that *ne* hosts up to one following clitic syntactically as well, a claim we do not make here.

c. [ne sum ti go DAla]
   not am$_{1.SG}$ you$_{DAT.SG}$ it$_{ACC}$ given$_{F.SG}$
   li?
   Q
   (Macedonian, clitic ne)

d. [ne SÂM] li ti go [DAla]?
   not am$_{1.SG}$ Q you$_{DAT.SG}$ it$_{ACC}$ given$_{F.SG}$
   Haven't I given it to you?   (Bulgarian)

(46)a. [NE] li ti SE čini],
       not Q you$_{DAT}$ REFL.seem$_{3.SG}$
       deka ...?
       that
       (Macedonian, non-ESD)

b. [ne ti SE čini]
   not you$_{DAT}$ REFL.seem$_{3.SG}$ li, deka ...?
   Q that   (Macedonian, ESD)

c. [ne ti se Čini] li, deka ...? (Macedonian, clitic ne)
   not you$_{DAT}$ REFL.seem$_{3.SG}$ Q that

d. [ne TI] li se [STRUva], če...
   not you$_{DAT}$ Q REFL.seem$_{3.SG}$ that
   Doesn't it seem to you that ...?   (Bulgarian)

In the Bulgarian examples (45d) and (46d), as well as (4b) above, the first clitic is stressed by the preceding ne, and li follows the PrWd consisting of [ne + stressed clitic]. No such prosodic constituent occurs in Macedonian.[23]

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[23] Englund (1977, p. 112) lists the following Macedonian example from Jovan Boškovski's "Žeravi", with the order ne + clitic + li in a negated main-clause question:

(i)   Ne i li se čini
      not you$_{DAT}$ Q REFL.seems$_{3.SG}$
      [deka pticata kako da ni potskažuva (...)]?
      Doesn't it seem to you [as if that bird was trying to tell us ...]?

However, all our Macedonian informants rejected or questioned the example with this order, preferring li after ne (cf. (47a), accepted by four out of the five speakers we asked) or the verb (cf. (47b–c) accepted by three out of four). Some speakers prefer ESD and others prefer non-ESD variants; one of our informants regularly rejects non-ESD stress patterns. Englund's example is spoken by a character in a story, and may not represent standard Macedonian.

If no clitic is present, then the Bulgarian negative-question word order is ne + verb + li, which appears like Macedonian ESD, but is instead the result of ne's stress being unrealized in the absence of a following clitic:

(47)a. [NE] li POstojat VONzemni
       not Q exist$_{3.PL}$ extraterrestrial
       civiliZAcii?   (Macedonian, non-ESD)
       civilizations
       Do there NOT exist extraterrestrial civilizations?

b. [ne POstojat] li VONzemni
   not exist$_{3.PL}$ Q extraterrestrial
   civiliZAcii?   (Macedonian, ESD)
   civilizations

c. [ne POstojat] li VONzemni
   not exist$_{3.PL}$ Q extraterrestrial
   civiliZAcii?   (Macedonian, clitic ne)
   civilizations

d. [ne săštestVUvat] li izvănZEMni civiliZAcii? (Bulgarian)
   not exist$_{3.PL}$ Q extraterrestrial civilizations
   Do there not exist extraterrestrial civilizations?

In all three Macedonian sentences, li follows the first PrWd domain. Note that the ESD (47b) and clitic ne (47c) stress patterns are neutralized if the second member of the ESD pair is at least trisyllabic. In Bulgarian only one stress pattern and one position for li is possible. The word immediately following ne is the first stressed element (in fact, the only stressed element) of the verb word, so li encliticizes to it.

It is not entirely clear whether ne + clitic in Bulgarian constitutes a maximal PrWd domain, or whether Bulgarian li follows a simple PrWd stress rather than a PrWd domain (Hypothesis A of (37)); given the lack of a regular stress pattern as a diagnostic, it is harder to establish the extent of prosodic words in Bulgarian than in Macedonian. The prosodic structure of (46d) might be either of the following:

(48)a. [ne TI] [li] [se STRUva]
       (Bulgarian)

b. [[[ne TI] li] se] [STRUva]

In both of these *li* immediately follows the first right-hand PrWd bracket. In (48a) the PrWd containing *li* and its host is also a maximal PrWd domain, but in (48b) there is a larger PrWd domain containing an additional unstressed clitic. Structure (48b) is suggested by the fact that the verbal clitics (*ti* and *se* in this example) are normally hosted as a unitary 'cluster'. On the other hand, the possibility of pausing before but not after *se* supports (48a). It has been claimed, e.g., by Tomić (1996a, p. 512), that the clausal clitics are always phonologically enclitic; however, in some cases, they are not preceded by any stressed constituent, but merely by unstressed conjunctions or particles (see Section 5.3 below). We leave the choice between (48a) and (48b) open.

To summarize, word order in negative questions is complicated by two independent phenomena, interacting with prosodic inversion to produce a marked divergence in this construction between Macedonian and Bulgarian. ESD or proclitic *ne* causes Macedonian *li* to appear after the PrWd containing *ne*, the verb, and any intervening clitics; while negative stress shift causes Bulgarian *li* to follow the first constituent – clitic or non-clitic – after *ne*. Only in the Macedonian non-ESD variant does *li* straightforwardly follow the first lexically accented word of the verbal complex, namely *ne*.

5.3. *Inversion of Verbal Clitics in Bulgarian*

We now turn to a third prosodic phenomenon affecting the position of *li*, the inversion of certain initial clitics in Bulgarian. Verbal clitics in both Macedonian and Bulgarian are syntactically proclitic to the tensed verb, as we have seen. Unlike those of Macedonian, however, Bulgarian clitic pronominals and auxiliaries are restricted from being initial.[24] If nothing precedes these clitics, prosodic inversion takes place (see Halpern 1995). This process is evident in the non-*li* examples in (49) through (52), as well as in the *li* questions in (1) and (2) above:

(49)a. uXOto   ne   boLI   (Bulgarian)

ear + the *me*ACC hurts3.SG

b. *ne boLI uXOto

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[24] Bulgarian clitics are characterized by the Tobler-Mussafia Effect, which requires merely that certain elements be non-initial, not by Wackernagel's Law, which requires particular constituents to be in second position; see Cavar (1996) and Cavar and Wilder (1994) for discussion.

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c. boLI   me   uXOto   (Macedonian)

hurts3.SG *me*ACC ear + the

My ear hurts.

(50)   ne   BOli   Uvoto   (Macedonian)

*me*ACC hurts3.SG ear + the

My ear hurts.

(51)a. AZ   ti   ja   DAdox   (Bulgarian)

I NOM *you*DAT *it*ACC gave1.SG

b. *ti ja DAdox

c. DAdox   ti   ja

gave1.SG *you*DAT.SG *it*ACC

I gave it to you.

(52)   ti   ja   DAdov   (Macedonian)

*you*DAT.SG *it*ACC gave1.SG

I gave it to you.

In (49a) and (51a) a focus or topic phrase precedes the preverbal clitics. (The analogues of these sentences are also possible in Macedonian.) In (49b) and (51b) no lexical material precedes the clitics; this ungrammatical construction is avoided by inversion of the clitics with the verb in the corresponding (c) examples. Macedonian has no need of this last-resort mechanism, since all clitics in this language can stand in sentence-initial position.

Inversion in Bulgarian occurs not only sentence-initially, but following a sentence-internal pause as well. In sentence (53), from Hauge (1976, p. 5), each clause shows a different way for the clitics to achieve non-initiality:

(53)   iVAN VČEra   se   oBAdi,   VÂRna   mu

Ivan yesterday REFL.ACC called3.SG returned3.SG him.DAT

gi,   i   si   oTIde.   (Bulgarian)

them.ACC and REFL.DAT went3.SG

Ivan called yesterday, returned them to him, and went home.

In the first clause the clitic *se* remains preverbal because other accented words appear before the clitic + verb PrWd. In the third clause the phonologically proclitic conjunction *i* shields the clitic *si* from initial position in its intonation phrase, [*i si* oTIdel]; *si* is therefore able to remain preverbal. But in the middle clause nothing shields the clitics *nu* and *gi* from immediately following the clause-initial pause (represented by a comma) in their preverbal configuration *[*nu gi* VÂRnal]; inversion is therefore required. The Bulgarian verbal clitics can follow essentially anything except a pause. They may follow adjuncts to CP, conjunctions, or other material not dominated by the CP node; the domain within which they must not be initial is not the clause. In addition, CP-internal modal particles, future *šte* and subjunctive *da*, are sufficient to shield the auxiliary and pronominal clitics from initial position and prevent inversion, even though they are themselves unstressed clitics:

(54)a. *šte ti gi KUpim.* (Bulgarian)

    will you_DAT.SG them_ACC buy_1.PL.

    We will buy them for you.

b. *da si gi KUpim.*

    SUBJ REFL.DAT *them_ACC buy_1.PL.*

    Let's buy them for ourselves.

Thus, the crucial non-initiality domain is some prosodic category above PrWd (probably Intonation Phrase); the non-initiality requirement is not syntactically based, but prosodic, and does not necessarily involve a preceding stressed word.

Clitic inversion is relevant to the syntax of *li* questions because the auxiliary and pronominal clitics raise to C along with the verb, as described in Section 3 above. In Macedonian (55), *li* straightforwardly encliticizes to the verbal complex (the PrWd consisting of the verb and its incorporated functional categories, some realized as preceding clitics), as in (55):

(55) *ste go GLEdale li Ovoj FILM?* (Macedonian)

    are_2.PL. it_ACC seen_PL. Q this_M.SG film

    Have you seen this film?

In (55) the verbal complex is *ste go gledale*. Right adjunction of the verb to *li* results in the syntactic Spell-Out string [*li* [*ste go gledale*]] in C; prosodic inversion then produces the surface order.

In Bulgarian, exactly the same process occurs if a topic phrase or other material precedes C. In (56), where the non-clitic pronoun *vie* is a topic, *li* inverts with *ste go gledali* just as in Macedonian:

(56) *Vie ste go GLEdali li TOzi* (Bulgarian)

    you_NOM.PL. are_2.PL. it_ACC seen_PL. Q this_M.SG

    film

    Have you seen this film?

However, if the topic is set off by a pause or prosodic break, represented by // in (57), the verb must invert to provide a prosodic host for the clitics. Prosodic inversion then places *li* after this fronted verb, which is the first stressed element of the verb complex:

(57) *Vie // GLEdali li ste go TOzi* (Bulgarian)

    you_NOM.PL. seen_PL. Q are_2.PL. it_ACC this_M.SG

    FILM?

    film

    (As for you), have you seen this film?

When the complex verb is sentence-initial, clitic inversion likewise takes place. In (58) — the Bulgarian counterpart of (55) — the verbal complex [*ste go gledali*] is adjoined to C, resulting in the string [*li* [*ste go gledali*]]. Simple prosodic inversion of *li* here would produce a sentence with initial clitics, which is not possible in Bulgarian. Clitic inversion is required within the complex verb, giving the order [*li* [*gledali ste go*]]. As in all V + *li* constructions, prosodic inversion places *li* at the end of the first PrWd to its right. In the examples in (55) and (58) this first PrWd is the verb:

(58) *GLEdali li ste go?* (Bulgarian)

    seen_PL. Q are_2.PL. it_ACC

    Have you seen it?

To summarize this subsection, we have shown that Bulgarian, unlike Macedonian, has a prosodic non-initiality requirement on its clitic pronominals and auxiliaries which affects word order and placement of *li* in questions without an initial topic or other pre-C element.

5.4. *Non-Clitic Auxiliaries and Participle Fronting*

Another factor involved in the word order of *li* questions is the existence in both Macedonian and Bulgarian of non-clitic as well as clitic auxiliaries. These two types of auxiliaries interact with the other prosodic phenomena discussed to this point and with a discourse-governed process of participle fronting to produce a mosaic of word orders in various tenses and moods, all of which are accounted for by our analysis of V + *li* questions (head movement of complex V to C, followed by prosodic inversion).

In constructions with a stressed instead of a clitic auxiliary, *li* follows the auxiliary (except in cases of participle fronting; see below). Non-clitic auxiliaries include *ima-* 'have' in Macedonian (59a), the past tense forms of 'be' in Bulgarian (59b), and the negative-future *nema/njama* 'won't' in both languages (60a–b):

(59)a.   Ima   **li** DOJdeno *kaj* NAS?   (Macedonian)

         has$_{3.SG}$ Q *come*   *to*   *us*

         Has (s)he been to our place?

    b.   BEše   **li** doŠLA?   (Bulgarian)

         was$_{3.SG}$ Q *come$_{F.SG}$*

         Had she arrived?

(60)a.   NEma   **li** *da* VRne?   (Macedonian)

         won't$_{3.SG}$ Q *to* *rain$_{3.SG}$*

    b.   NJAma   **li** *da* vaLI?   (Bulgarian)

         won't$_{3.SG}$ Q *to* *rain$_{3.SG}$*

         Isn't it going to rain?

Another auxiliary which is lexically stressed in Bulgarian but not in Macedonian is the conditional stem */bi-/*. Whereas *bi* appears clause-initially in both (61a) and (62b), this element is distinct in the two languages. In Macedonian, *bi* is neither inflected nor accented, and behaves like any verbal clitic in that language.[25] The irrealis element in Bulgarian, however,

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is stressed and inflected for person- and number-agreement. The form *bi* in (62b) is the 3.SG form, which happens to be segmentally identical to the invariant Macedonian one; (62c) shows the 2.PL form:

(61)a.   bi   mi   DAI,   **li** PAri?   (Macedonian)

         would me$_{DAT}$ *given$_{M.SG}$* Q *money*

    b.   ***BI** *li mi* DAL PAri?   (Macedonian)

         Would he give me money?

(62)a.   *bi *mi* DAL **li** paRI?   (Bulgarian)

    b.   BI   **li** *mi*   DAL   paRI?   (Bulgarian)

         would$_{3.SG}$ Q me$_{DAT}$ *given$_{M.SG}$ money*

         Would he give me money?

    c.   BIXte   **li** *mi*   DALi   paRI?

         would$_{2.PL}$ Q me$_{DAT}$ *given$_{PL}$ money*

         Would you give me money?

Both Macedonian and Bulgarian also have lexically accented 'be' forms, formed from the stems */bid-/* and */bəd-/*, respectively. These accented stems are traditionally considered perfective, as opposed to the imperfective clitic 'be' forms; however, this aspect distinction is often neutralized and the two forms may be used with virtually identical meaning, at least in Bulgarian:[26]

(63)a.   *ke*   BIdeš **li** GOtov?   (Macedonian)

         will be$_{2.SG}$ Q *ready$_{M.SG}$*

         Will you be ready?

    b.   *ke*   si   GOtov   **li**?

         will be$_{2.SG}$ *ready$_{M.SG}$* Q

         Will you really be ready?

(64)a.   *šte*   BÂdeš **li** goTOV?   (Bulgarian)

         will be$_{2.SG}$ Q *ready$_{M.SG}$*

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b. Šte si   goTOV   li?
   will $be_{2.SG}$ $ready_{M.SG}$ Q
   Will you be ready?

(65)a. Šte si   BÁdeš li naPIsal   pisMOto?
       will $be_{2.SG}$ Q written$_{M.SG}$ Q
       will $be_{2.SG}$ written$_{M.SG}$ Q letter + the

   Will you have written the letter?

b. Šte si   naPIsal   li pisMOto?
   will $be_{2.SG}$ written$_{M.SG}$ Q letter + the
   will $be_{2.SG}$ written$_{M.SG}$ Q letter + the   (Bulgarian)

   Will you have written the letter?

These accented stems are used only as copulas in Macedonian (63a) but as both copula and auxiliary in Bulgarian in (64a) and (65a).[27] The choice of the accented or unaccented 'be' form affects the position of *li* in both languages, since it changes the position of the first stressed element of the verb complex. The effect is the same in both languages: *li* directly follows the accented (non-clitic) auxiliary, but when the clitic auxiliary is chosen *li* must come later, after the main verb or other accented predicate word.

Under some circumstances the normally clitic 'be' forms can also be treated as non-clitics, taking word stress and appearing in non-clitic positions. Englund (1977, p. 111) gives Macedonian example (66a) and Embick and Izvorski (1997, p. 221) report Bulgarian (66b) (stress added on both examples).[28]

(66)a. SI   li TI   ČLEN   na mlaDInata   (Macedonian)
       $are_{2.SG}$ Q you$_{NOM.SG}$ member of youth + the
       Are you a member of the youth?

b. SI   li naPIsal   TRIdeset KNIgi, ili ne
   $are_{2.SG}$ Q written$_{M.SG}$ thirty   books or not
   SI?
   $are_{2.SG}$
   Have you written thirty books, or not?   (Bulgarian)

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[27] See Korubin (1974, pp. 246–48) and Baerman and Billings (1998) on auxiliary/copula differences in Macedonian, including the fact that auxiliary but not copula clitics lack third-person forms. Hauge (1976, p. 16) suggests some speakers may make an auxiliary/copula distinction in Bulgarian, too, placing 3.PL copula *sa* after the pronominal clitics but 3.PL auxiliary *sa* before them. Scatton (1984, pp. 328–329) gives further examples of *li/ băd-/* as an auxiliary in Bulgarian.

[28] Minova-Ǵurkova (1994, p. 152) and Hauge (1976, pp. 2–3) also discuss similar sentences in Macedonian and Bulgarian, respectively. Hauge suggests an account in terms of ellipsis or displacement of the clitic's host, leaving it stranded.

These examples are interesting in light of the head-movement account of V + *li* questions we adopt in Section 3 above, showing what happens when the tensed verb is a clitic. The finite verb moves to C, as in tree (14), regardless of its clitic status. For those speakers who accept (66a–b), the best means of providing a host for *li* seems to be a last-resort strategy of stressing the clitic 'be' form.

Not all of our Macedonian informants accepted (66a). Those who did invariably stressed it as shown, as predicted if *li* must follow a stressed PrWd. Those who rejected it suggested either of (67a–b) instead:

(67)a. DAli   si   ČLEN   na mlaDInata   (Macedonian)
       whether $are_{2.SG}$ member of youth + the
       Are you a member of the youth?

b. TI   li si   ČLEN   na mlaDInata   (Macedonian)
   you$_{NOM.SG}$ Q $are_{2.SG}$ member of youth + the
   Are YOU (really) a member of the youth?

The complementizer *dali*, in (67a), is discussed in Section 6 below. The structure of (67b) is (68), in which *ti* 'you' is focused (moved to SpecCP). This is thus an instance of the XP + *li* construction in (10) above:

(68) [CP [SpecCP TI]$_C$ *li*] [IP [1 si]_[DP ČLEN na mlaDInata]]]

One Macedonian example given by Englund (1977, p. 115) appears to involve the interaction of a 'be' clitic and ESD (cf. Section 4.2 above):

(69) ama NE e   li TOa   Otvoren STRAV deka ke Umram?
      but not is$_{3.SG}$ Q this$_{N.SG}$ open$_{M.SG}$ fear that will die$_{1.SG}$
      But isn't this an obvious fear that I would die?

All our informants accepted (69) with the stresses given. The word order of this example is, at first glance, problematic for the syntactic-movement and prosodic-inversion account we adopt here. The problem is that if *ne* is inherently accented (bears stress), and if *li* prosodically inverts to the right of the first PrWd, prosodic inversion seems to predict the order **ama NE li e*. We suggest instead that ESD (discussed above, in Section 5.1), treating *ne* and *e* as a single PrWd, causes *li* to invert to the attested place after *e*.

Another lexical factor affecting the placement of *li* relative to other clitics is that not all verbal clitics in Bulgarian are subject to the non-initiality restriction discussed in Section 5.3. In both languages, the future

particle *keʃte* is a clitic, but *ʃte* differs from other clitics in Bulgarian in being able to begin a sentence, shielding the other verbal clitics from being clause initial and preventing clitic inversion:

(70)a. *ke go ZAVŕšat li?*
will it$_{ACC}$ finish$_{3.PL}$ Q (Macedonian)

   b. *ʃte go SVÂRšat li?*
will it$_{ACC}$ finish$_{3.PL}$ Q (Bulgarian)

   c. **SVÂRšat li ʃte go*
Will they finish it? (Bulgarian)

As we noted in Section 5.3, the subjunctive particle *da* and other lexically unstressed words such as conjunctions serve the same function, even if they are not part of the verbal complex; see examples (53) and (54). Summing up this section so far, constituent order in *li* questions is affected by lexically specified features of individual auxiliaries in each language, particularly their accentual status (clitic or non-clitic) and their (in)ability to occur initially.

The final factor we discuss which results in word order differences between Macedonian and Bulgarian in certain *li* questions, is differences in participle fronting.[29] In Bulgarian, when a clitic auxiliary is not preceded by other lexical material such as a topic phrase, it inverts with the participle to prevent it from being initial (cf. 5.3):

(71)a. *XOdili sa TAM.*
gone$_{PL}$ are$_{3.PL}$ there
They've gone there. (Bulgarian)

   b. **sa XOdili TAM.*

Only focused participles are fronted with a non-clitic auxiliary (72) or when a clitic auxiliary is preceded by an initial element, such as *ʃte* in (73). See King (1997a), Legendre (1998), and Rivero (1994) for discussion of this 'optional' participle movement:

(72)a. *XOdili BJAxa TAM.*
gone$_{PL}$ were$_{3.PL}$ there
They had GONE there. (Bulgarian)

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[29] For further discussion of participle fronting in these and other Slavic languages, see Embick and Izvorski (1997) and King (1997b).

   b. *BJAxa XOdili TAM.*
were$_{3.PL}$ gone$_{PL}$ there
They had gone there. (Bulgarian)

(73)a. *XOdili ʃte sa.*
gone$_{PL}$ will be$_{3.PL}$
They'll have GONE. (Bulgarian)

   b. *ʃte sa XOdili.*
will be$_{3.PL}$ gone$_{PL}$
They'll have gone.

Participle fronting, of both the obligatory and optional types, interacts predictably with *li* placement; *li* always follows the first stressed element, whether this is the participle or an auxiliary:

(74)a. *XOdili li sa?*
gone$_{PL}$ Q are$_{3.PL}$
Have they gone? (Bulgarian)

   b. *XOdili li BJAxa?*
gone$_{PL}$ Q were$_{3.PL}$
Had they GONE?

   c. *BJAxa li XOdili?*
were$_{3.PL}$ Q gone$_{PL}$
Had they gone?

   d. *ʃte sa XOdili li?*
will are$_{3.PL}$ gone$_{PL}$ Q
Will they have gone?

   e. *XOdili li ʃte sa?*
gone$_{M.SG}$ Q will are$_{3.SG}$
Will they have GONE?

Participle fronting is much less prevalent in Macedonian. Although not directly relevant to the syntax or prosody of *li* itself, the differing conditions on participle fronting in the two languages naturally lead to differing word-order possibilities in *li* questions (as in declarative sentences)

with participles. In particular, Embick and Izvorski (1997, p. 232) point out that fronting of a 'non-thematic' (verbal) participle is impossible in Macedonian. Only 'thematic' (adjectival) participles, whose position is governed by discourse-pragmatic factors such as backgrounding, topicalization, and contrastive focus, can be fronted.[30] Example (75) is their (34); stress notation added:

(75)a. si BIL preDUpreden za TOa. (Macedonian)
are$_{2.SG}$ been warned$_{M.SG}$ about that$_{N.SG}$
You've been warned about that.

b. *BIL.si preDUpreden za TOa.

c. preDUpreden si BIL za TOa.
You've been WARNED about that.

Non-thematic participle fronting can and often must occur in Bulgarian, as we have seen, to shield the clitic auxiliary from initial position. But in Macedonian, where the clitic auxiliary has no non-initiality requirement, this prosodically-motivated fronting does not take place.[31] As in Bulgarian, prosodic inversion of li interacts predictably with participle fronting in Macedonian, placing li after the first stressed PrWd:

(76)a. si BIL li preDUpreden za TOa? (Macedonian)
are$_{2.SG}$ been$_{M.SG}$ Q warned$_{M.SG}$ about that
Were you warned about that?

b. preDUpreden li si BIL za TOa?
warned$_{M.SG}$ Q are$_{2.SG}$ been$_{M.SG}$ about that
Were you WARNED (really) about that?

To summarize Section 5, then, Macedonian and Bulgarian li questions are affected by several language-specific prosodic phenomena, which cause them to appear rather divergent in their placement of li. These prosodic

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[30] Korubin (1974) also provides useful insights on the different types of participles in Macedonian, particularly adjectival ones formed with n or t as opposed to verbal ones with l.

[31] The connection between the possibility of clause-initial clitics and limited participle fronting in Macedonian was first observed, to our knowledge, by Dimitrova-Vulchanova (1995, pp. 80-81).

differences mask the syntactic structure of the two languages, which is quite uniform.

6. USAGE

Macedonian and Bulgarian yes/no questions not only differ prosodically, they differ pragmatically as well. Unlike in Bulgarian, Macedonian li is syntactically optional, alternating with zero as well as with the non-clitic yes/no-interrogative complementizer dali. The conditions on its occurrence may have to do with stronger association of li with focus in Macedonian than in Bulgarian, and may also be subject to regional variation. Other Slavic languages with li questions also differ in frequency and usage of the construction; see footnote 3.

Usage differences have been quantified by several studies. Englund (1977) reports that in her corpus of literary works, 60 percent of Bulgarian yes/no questions contain li, the remainder mostly being formed with other question words, such as nali 'isn't it so'. In her Macedonian corpus, only 30 percent of yes/no questions use li, and 44 percent have no question word at all; cf. also Friedman (1993, pp. 286–87), Kramer (1986, pp. 130–50), and Restan (1972, pp. 587–621). Another corpus study, Nikov (1976), finds that 92.6% of 'neutral' (non-echo, non-rhetorical) yes/no questions in a Bulgarian corpus use li, confirming that li in Bulgarian is virtually obligatory.

The very different usage of li in Macedonian is borne out by a survey of questions in Kramer (1985), a Macedonian phrase book. Out of 101 questions that would require li in Bulgarian, 52 have li, 29 have dali, and 20 have no overt question word. The three types of questions are apparently synonymous in many cases; when visiting the auto mechanic, for example, the tourist is advised to ask the three questions in (77):

(77)a. Imate maslo za avtomobil? Ø (Macedonian)
have$_{2.PL}$ oil for automobile
Do you have oil for cars?

b. Imate li auspux? li
have$_{2.PL}$ Q muffler
Do you have a muffler?

c. Dali imate svekički? dali
Q have$_{2.PL}$ spark-plugs
Do you have spark plugs?

Only (77b) corresponds to a normal question in Bulgarian; a question formed with intonation alone, like (77a), is marginal in Bulgarian, while *dali* in a Bulgarian main clause signals a rhetorical question. The equivalent of (77c) would mean *I wonder if you might have spark plugs*, the speaker would not necessarily expect an answer.

Similarly, the following are virtually synonymous in Macedonian, though only the (b) version, with *li*, corresponds to a normal question in Bulgarian:

(78)a. Ima   prašanje?   (Macedonian
        have₃.SG question

   b.   Ima **li** prašanje?

   c.   Dali ima prašanje?
        Is there a question?

(79)   Ima   **li** vápros?   (Bulgarian)
         have₃.SG Q question?
         Is there a question?

To some extent, the apparent optionality of *li* in Macedonian may reflect regional variation. In particular, omission of *li* (i.e., intonation alone as yes/no question marker) is said to be more common in western dialects, while *li* tends to be used in the eastern dialect areas, near Bulgaria (Minova-Gúrkova 1987, citing Koneski). Hendricks (1976), a grammar of a far-western dialect, has no mention at all of *li*. Groen (1977, p. 175), which documents a dialect not quite as far west, also reports no interrogative *li*, though he does mention a special conjunction *l'i*. This east-west split is supported by our own experience: several speakers from western Macedonia commented that an intonation question would be more usual than one with *li*; and one said using *li* made him feel like he was acting in a stage comedy. However, factors other than geography are probably involved, too.

There are hints of a subtle meaning difference between *li*, *dali*, and zero question marker both in the literature and in our consultants' intuitions. Englund (1979) suggests that, statistically, zero is most likely to appear in confirmative questions (those which expect or desire a positive answer), *li* is most likely in rejective questions, and *dali*, *li*, and zero are equally likely in neutral informative questions. Minova-Gúrkova (1987)

reports that while positive *li* questions have a broad range of uses in literary Macedonian, negative *li* questions are usually rhetorical. One speaker from northwestern Macedonia told us that *li* adds a "perhaps" feeling to a question; some speakers seem to interpret questions with *li* as rhetorical, preferring zero or *dali* for neutral questions. Interestingly, this is the opposite of Bulgarian, in which *li* questions are neutral and *dali* in a main clause gives a rhetorical flavor.

Another possibility is that *li* questions in Macedonian may always have a focusing sense, unlike in Bulgarian, where they are neutral when no focus phrase appears before *li*. Consider the following set of examples, where our informant felt a subtle difference in meaning between *li*, *dali*, and zero:

(80)a. Ima   Pepsi?   (neutral)
        have₃.SG
        Is there Pepsi?

   b.   Dali ima Pepsi?   (neutral)
        Is there Pepsi?

   c.   Pepsi **li** ima?   (focus on *Pepsi*)
        Is there PEPSI?

   d.   Pepsi ima **li**?   (focus on predicate; *Pepsi* is topic)
        As for Pepsi, IS there any?

   e.   Ima **li** Pepsi   (focus on predicate)
        IS there Pepsi?

   f.   ?Pepsi ima?

   g.   ?Dali Pepsi ima?

The zero question (80a) is neutral. A *dali* question (80b) is also relatively neutral, but the explicit question marker makes its interpretation unambiguous. A *li* question must have a focus feature checked by an element in SpecCP (80c) or by the verb in C (80d–e); in the latter case it focuses the predicate, giving a sense of surprise ('IS there (really) Pepsi?'). Sentences (80f–g) are slightly odd, presumably because *Pepsi* has moved to the preverbal focus position in the absence of the focus-marking *li*.

In both Macedonian and Bulgarian embedded questions, *dali* is neutral and most common; *li* is also possible; but a zero variant is ungrammatical:

(81)a. Te prašuvaat dali pristignal vozot.

you.ACC ask.3.PL whether arrived.M.SG

train + the

They are asking you whether the train has arrived.

(Macedonian)

b. ?Te prašuvaat pristignal **li** vozot.

c. *Te prašuvaat pristignal vozot.

(82)a. Pitat te dali e pristignal vlakât.

ask.3.PL you.ACC whether is.3.SG arrived.M.SG

train + the

They are asking you whether the train has arrived.

(Bulgarian)

b. Pitat te pristignal **li** e vlakât.

c. *Pitat te pristignal e vlakât.

Although simple examples like (81b) are often judged marginal or felt to convey direct quotation ("They ask you: 'Has the train arrived?'"), literary instances of the same construction occur and are felt to be normal. The following is from a story by the well-known Macedonian writer Slavko Janevski (the boldfaced portion is given in more detail in (83b)):

(83)a. Očigledno ne procenuvajki ja opasnosta ili ne veruvajki i, popot se dvoumeše bessilen, **ne li ke se seti** na nekakva itroština so koja ke se izvleče od stapicata.

(Macedonian)

Evidently not fully appreciating the danger or just not believing it, the priest wondered, helpless, **whether or not he might think up** some kind of ruse by which he could free himself from the trap.

b. NE **li** ke se SEti

not Q will REFL.ACC think-up.3.SG

The 'optionality' of Macedonian *li* does not bear directly on the syntax of *li* questions, but does affect speakers' judgments. The artificiality of grammatical elicitation or inability to imagine an appropriate context may be a complicating factor. One speaker rejected *li* in one session but used it readily later on. Another strongly preferred zero questions, accepting questions with *li* only reluctantly, but had clear intuitions about where *li* would be placed if she did use it.

To summarize this section, although they do not seem to be connected to any difference in the syntax (or, for that matter, the prosody) of *li* itself, differences in the usage and frequency of *li* questions in Bulgarian and Macedonian do exist and constitute another important distinction between the two languages.

7. CONCLUSION

Macedonian and Bulgarian yes/no questions are syntactically of two types. In the XP + *li* type, *li* follows a focus phrase in SpecCP. In the V + *li* type, *li* incorporates a raised verb along with clitics representing the functional heads through which it has raised to C. In the latter construction, prosodic inversion places *li* after the first Prosodic Word of the complex V. In spite of their common syntax, however, *li* questions in the two languages differ significantly as a result of several independent prosodic and pragmatic differences between the two languages which interact with the processes of verb raising and prosodic inversion:

• Macedonian allows certain two-word combinations to have a single stress, causing *li* at times to follow two lexically accented words.

• Bulgarian *ne*, the Neg head, has a special property of stressing the following element, causing *li* to invert prosodically past the Pr-Wd consisting of *ne* plus the following, stressed element.

• Bulgarian requires auxiliary and pronominal clitics to be non-initial and employs clitic-verb inversion to prevent illicit initial clitics.

• Macedonian and Bulgarian differ to some extent in the prosodic properties of individual auxiliaries, such as the conditional stem /bi-/, and in the effects of non-clitic auxiliaries on word order.

• Macedonian and Bulgarian differ in the types of participle fronting they allow.

• In Macedonian, *li* is a marked option among several ways of forming a yes/no question, while in Bulgarian it is the unmarked norm.

Our analysis captures both the essential similarity between the grammars of two closely related languages, and the striking differences between

them. The syntax of the two languages is identical, as is the prosody of *li* itself: the differences are due to the interaction of *li* and the syntax of *li* questions with a series of non-syntactic factors: differing prosodic constraints on various types of clitics and phrases, idiosyncratic differences in the prosodic properties of particular lexical items, and differences in usage. This satisfying result underlines once again the utility of a modular approach to the grammars of related languages.

REFERENCES

Alexander, Ronelle: 1991, 'The Rhythm of Negation in Balkan Slavic', presented at the American Association of Teachers of Slavic and Eastern Languages Conference, San Francisco.

Alexander, Ronelle: 1995, 'The Balkanization of Wackernagel's Law', *Indiana Slavic Studies* 7, 1–8, in G. Fowler et al. (eds.), *Proceedings of the 9th Biennial Conference on Balkan and South Slavic Linguistics, Literature, and Folklore*, Department of Slavic Languages, Indiana University, Bloomington.

Anderson, Stephen R.: 1996, 'How to Put your Clitics in their Place, or Why the Best Account of Second-Position Phenomena May be Something Like the Optimal One', *The Linguistic Review* 13, 165–91. (Special issue: M. Nespor (ed.) *Phonology Between Words and Phrases*.)

Avgustinova, Tania: 1994, 'On the Bulgarian Verb Clitics', *Journal of Slavic Linguistics* 2, 29–47.

Baerman, Matthew: 1998, 'The Evolution of Prosodic Constraints in Macedonian', *Lingua* 104, 57–78.

Baerman, Matthew and Loren Billings: 1998, 'Macedonian Clitics and the Trisyllabic Stress Window', in M. Dimitrova-Vulchanova et al. (eds.), *Papers from the Second Conference on Formal Approaches to South Slavic Linguistics* (University of Trondheim Working Papers in Linguistics 31), NTNU Linguistics Department, Dragvoll, Norway, pp. 13–32.

Billings, Loren A.: 1996, 'Conflicting Prosodic and Syntactic Constraints on Special Clitics', *Zentrum für Allgemeine Sprachwissenschaft Papers in Linguistics* 6, pp. 43–50. (J. Kornfilt (ed.), *Proceedings of the Workshop on the Phonology, Morphology and Syntax of Clitics*, Berlin, 26–27 May 1996.)

Ćavar, Damir: 1996, 'On Cliticization in Croatian: Syntax or Prosody?', *Zentrum für Allgemeine Sprachwissenschaft Papers in Linguistics* 6, pp. 51–65. (J. Kornfilt (ed.), *Proceedings of the Workshop on the Phonology, Morphology and Syntax of Clitics*, Berlin, 26–27 May 1996.)

Ćavar, Damir and Chris Wilder: 1994, '"Clitic Third" in Croatian', *Linguistics in Potsdam* 1, 25–63.

Comrie, Bernard: 1976, 'Irregular Stress in Polish and Macedonian', *International Review of Slavic Linguistics* 1, 227–40.

Comrie, Bernard: 1997, 'Formal Approaches to Slavic Languages: Achievements and Limitations', in W. Browne et al. (eds.), *Formal Approaches to Slavic Linguistics* 4, Michigan Slavic Publications, Ann Arbor, pp. 165–82.

Dimitrova-Vulchanova, Mila: 1995, 'Clitics in Slavic', *Studia Linguistica* 49, 54–92.

Elson, Mark J.: 1976, 'The Definite Article in Bulgarian and Macedonian', *Slavic and East European Journal* 20, 273–79.

Elson, Mark J.: 1993, 'Collocational Stress in Contemporary Standard Macedonian', *Slavic and East European Journal* 37, 149–61.

Embick, David and Roumyana Izvorski: 1997, 'Participle-Auxiliary Word Orders in Slavic', in W. Browne et al. (eds.), *Formal Approaches to Slavic Linguistics* 4, Michigan Slavic Publications, Ann Arbor, pp. 210–39.

Englund, Birgitta: 1977, *Yes/No-Questions in Bulgarian and Macedonian: Form*, Almqvist and Wiksell International, Stockholm (Acta Universitatis stockholmensis, Stockholm Slavic Studies, 12).

Englund, Birgitta: 1979, 'The Functions of Yes/No-Questions (on Basis of Bulgarian and Macedonian Material)', in B. Englund et al. (eds.), *Papers in Slavonic Linguistics* 1, Stockholms universitet, Institutionen för slaviska och baltiska språk, Stockholm, pp. 16–26. (Meddelanden från institutionen för slaviska och baltiska språk, 18.)

Franks, Steven L.: 1987, 'Regular and Irregular Stress in Macedonian', *International Journal of Slavic Linguistics and Poetics* 35–36, 93–142.

Franks, Steven L.: 1989, 'The Monosyllabic Head Effect', *NLLT* 7, 551–63.

Franks, Steven L.: 1991, 'Diacritic Extrametricality vs. Diacritic Accent: A Reply to Hammond', *Phonology* 8, 145–61.

Friedman, Victor A.: 1993, 'Macedonian', in B. Comrie and G. C. Corbett (eds.), *The Slavonic Languages*, Routledge, London, pp. 249–305.

Garde, Paul: 1968, 'Note sur l'enclise et la proclise en macédonien', *Zbornik za filologiju i lingvistiku* 11, 31–37 [Novi Sad: Matica srpska].

Groen, Bernardus M.: 1977, *A Structural Description of the Macedonian Dialect of Dihovo*, Peter de Ridder Press, Lisse.

Halle, Morris and Michael Kenstowicz: 1991, 'The Free Element Condition and Cyclic vs. Noncyclic Stress', *Linguistic Inquiry* 22, 457–501.

Halpern, Aaron L.: 1995, *On the Placement and Morphology of Clitics*, CSLI Publications, Stanford.

Hammond, Michael: 1989, 'Lexical Stress in Macedonian and Polish', *Phonology* 6, 19–38.

Hauge, Kjetil Rå: 1976, *The Word Order of Predicate Clitics in Bulgarian*, Universitetet i Oslo, Slavisk-Baltisk Institutt, Oslo (Meddelelser, 10).

Hendriks, Peter: 1976, *The Radožda-Vevčani Dialect of Macedonian*, Peter de Ridder Press, Lisse.

Izvorski, Roumyana: 1994, 'Yes-No Questions in Bulgarian: Implications for Phrase Structure', presented at the 9th Biennial Conference on Balkan and South Slavic Linguistics, Literature, and Folklore, Indiana University, Bloomington, April 1994.

Izvorski, Roumyana: 1995, 'Wh-Movement and Focus-Movement in Bulgarian', in R. Eckardt and V. van Geenhoven (eds.), *ConSole II: Proceedings of the Second Conference of the Student Organization of Linguistics in Europe*, Holland Academic Graphics, The Hague, pp. 54–67.

Izvorski, Roumyana, Tracy Holloway King and Catherine Rudin: 1997, 'Against *li* Lowering in Bulgarian', *Lingua* 102, 187–94.

Kager, René: 1993, 'Stress in Windows', unpublished manuscript, Universiteit Utrecht.

Kenstowicz, Michael: 1991, 'Enclitic Accent: Macedonian, Italian, Polish', in P. M. Bertinetto et al. (eds.), *Certamen Phonologicum II: Papers from the 1990 Cortona Phonology Meeting*, Rosenberg and Sellier, Torino, pp. 173–85.

King, Tracy Holloway: 1995. *Configuring Topic and Focus in Russian*, CSLI Publications, Stanford. (Chapter 6, 'Focus in Yes-No Questions', also appeared in 1994 as 'Focus in Russian Yes-No Questions', *Journal of Slavic Linguistics* 2, 92–120.)

King, Tracy Holloway: 1996. 'Slavic Clitics, Long Head Movement, and Prosodic Inversion', *Journal of Slavic Linguistics* 4, 274–311.

King, Tracy Holloway: 1997a. 'The Prosodic Status of A/A'-Heads in Slavic', in K. Kusumoto (ed.), *Proceedings of the North Eastern Linguistics Society*, Vol. 27, GLSA, University of Massachusetts, Amherst, pp. 235–49.

King, Tracy Holloway: 1997b. 'Some Consequences of a Prosodic Inversion Account of Slavic Clitic Clusters', in U. Junghanns and G. Zybatow (eds.), *Formale Slavistik*, Vervuert Verlag, Frankfurt am Main, pp. 75–86.

Koneski, Blaže: 1952. 'Za akcentot', *Gramatika na makedonskiot literaturen jazik. Del 1.* Državno knigoizdatelstvo na NR Makedonija, Skopje, pp. 123–84. (Reprinted in 1967 as *Isbrani dela vo sedum knigi*, 6, Skopje, Kultura, pp. 139–210.)

Korubin, Blagoja: 1974. 'Mesto glagola *sum* kak vspomogatel'nogo i kak svjazki v makedonskom literaturnom jazyke', in N. Ju. Švedova et al. (eds.), *Grammatičeskoe opisanie slavjanskix jazykov: Koncepcii i metody*, Nauka, Moskva, pp. 244–50.

Kramer, Christina E.: 1985. *Anglisko-makedonski razgovornik*, Univerzitet 'Kiril i Metodij', Skopje.

Kramer, Christina E.: 1986. *Analytic Modality in Macedonian*, Verlag Otto Sagner, München (Slavistische Beiträge 198).

Kramer, Christina E.: 1993. 'The Future in Macedonian', presented at the American Association of Teachers of Slavic and East European Languages Conference, Toronto, 27–30 December 1993.

Legendre, Géraldine: 1998. 'Morphological and Prosodic Alignment of Bulgarian Clitics', to appear in J. Dekkers, F. van der Leeuw and J. van de Weijer (eds.), *Optimality Theory: Syntax, Phonology and Acquisition*, Oxford University Press.

Lunt, Horace G.: 1952. *A Grammar of the Macedonian Literary Language*, Državno Knigoizdatelstvo na NR Makedonija, Skopje.

Mihaljević, Milan: 1997. 'The Interaction of *li* and Negation in Croatian Church Slavonic', in U. Junghanns and G. Zybatow (eds.), *Formale Slavistik*, Vervuert Verlag, Frankfurt am Main, pp. 87–92.

Minova-Ǵurkova, Liljana: 1987. 'Partikulata *li* vo makedonskiot literaturen jazik', *Godišnik, Filološki fakultet na Univerzitetot – Skopje*, 29–38.

Minova-Ǵurkova, Liljana: 1994. *Sintaksa na makedonskiot standarden jazik*, Rading, Skopje.

Nikov, Mišel D.: 1976. 'Leksiko-sintaktična struktura na săštinskite obšti văprosi văv frenski i bălgarski ezik', *Bjuletin za săpostavitelno izsledvane na bălgarskija ezik s drugi ezici* 3, 115–34.

Norman, B. Ju.: 1971. 'Funkcii elementa *si* v glagol'nyx konstrukcijax bolgarskogo jazyka', in A. Ja. Suprun et al. (eds.), *Lingvističeskija dasledavanni. Sbornik artyklaw*, Vydavectva BDU imja Ul. I. Lenina, Minsk, pp. 179–93.

Penčev, Jordan: 1993. *Bălgarski sintaksis: Upravlenie i svărzvane*, Plovdivsko universitetsko izdatelstvo, Plovdiv.

Pepterkamp, Sharon: 1996. 'On the Prosodic Representation of Clitics', in U. Kleinhenz (ed.), *Interfaces in Phonology*, (Studia grammatica, 41), Academie Verlag, Berlin, pp. 102–27.

Restan, Per: 1972. *Sintaksis voprositel'nogo predloženija: obščij vopros (Glavnym obrazom na materiale sovremennogo russkogo jazyka)* [Syntax of the interrogative sentence: yes-no questions (Mainly on the basis of Russian material)], Universitetsforlaget, Oslo.

Rivero, María-Luisa: 1993. 'Bulgarian and Serbo-Croatian Yes-No Questions: V° Raising to -*li* vs. -*li* Hopping', *Linguistic Inquiry* 24, 564–75.

Rivero, María-Luisa: 1994. 'Clause Structure and V-Movement in the Languages of the Balkans', *NLLT* 12, 63–120.

Rudin, Catherine: 1993. 'On Focus Position and Focus Marking in Bulgarian Questions', in A. Davison et al. (eds.), *Papers from the 4th Annual Meeting of the Formal Linguistics Society of Midamerica*, University of Iowa, Iowa City, pp. 252–65.

Rudin, Catherine: 1997a. 'Kakvo *li* e *li*: Interrogation and Focusing in Bulgarian', *Balkanistika* 10, 335–46.

Rudin, Catherine: 1997b. 'Agr-O and Bulgarian Pronominal Clitics', in M. Lindseth and S. Franks (eds.), *Formal Approaches to Slavic Linguistics 5*, Michigan Slavic Publications, Ann Arbor, pp. 224–52.

Rudin, Catherine, Tracy Holloway King, and Roumyana Izvorski: 1997. 'Focus in Bulgarian and Russian Yes-No Questions', in E. Benedicto, M. Romero and S. Tomioka (eds.), *Proceedings of the Workshop on Focus, University of Massachusetts Occasional Papers in Linguistics* 21, 209–26, GLSA, University of Massachusetts, Amherst.

Sawicka, Irena and Ljudmil Spasov: 1997. *Fonologija na sovremeniot makedonski standarden jazik*, Detska radost, Skopje.

Scatton, Ernest: 1984. *A Reference Grammar of Modern Bulgarian*, Slavica, Columbus.

[SSKGJ]: 1975. *Slovar slovenskega knjižnega jezika*, v. 2, Slovenska akademija znanosti in umetnosti, Institut za slovenski jezik, Ljubljana.

Toman, Jindřich: 1996. 'A Note on Clitics and Prosody', in A. L. Halpern and A. M. Zwicky (eds.), *Approaching Second: Second Position Clitics and Related Phenomena*, CSLI Publications, Stanford, pp. 505–10.

Tomić, Olga Mišeska: 1996a. 'The Balkan Slavic Nominal Clitics', in A. L. Halpern and A. M. Zwicky (eds.), *Approaching Second: Second Position Clitics and Related Phenomena*, CSLI Publications, Stanford, pp. 511–35.

Tomić, Olga Mišeska: 1996b. 'The Balkan Slavic Clausal Clitics', *NLLT* 14, 811–72.

Wilder, Chris and Damir Ćavar: 1994. 'Long Head Movement? Verb Movement in Cliticization in Croatian', *Lingua* 93, 1–58.

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