

Syntax and prosody: *li* questions in Macedonian and Bulgarian

Loren Billings, Christina Kramer, and Catherine Rudin

Abstract. The distribution of the yes/no-interrogative clitic *li* in Macedonian and Bulgarian reveals a complex interaction of syntax with prosodic factors. The underlying syntactic uniformity of *li* questions in the two languages is obscured by a series of prosodic phenomena affecting one language or the other. In Macedonian two prosodic factors affect the placement of *li*: optional stressing of auxiliaries and optionally allowing certain sequences of words to have only one 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 four factors are controlled for, the syntax of *li* questions in the two languages is startlingly homogeneous. If no element is focused (i.e., moved to SpecCP), then, in both languages, the tensed verb head-incorporates into *li* in C. Usage differences complicate the picture somewhat as well.

1. Introduction

Much recent work in theoretical linguistics relies upon cross-linguistic comparison to elucidate the limits and causes of variation in Universal Grammar; that is, to establish just 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. The two languages considered in this article, Macedonian and Bulgarian, are very closely related genetically, both being 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 rather superficial factors, changes which could be introduced into a grammar in a relatively short time, even if their surface 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. Superficially, Macedonian and Bulgarian appear to have distinct conditions on the placement of *li*, particularly with respect to the other clitics. We argue, however, that the syntactic behavior of *li* is fundamentally identical in the two languages, as is their clitics' placement. Several prosodically realized differences between the two languages interact with their common syntax to

* Thanks to the following colleagues for their assistance: P. Ambrosiani, W. Browne, D. Ćavar, L. Hammer, R. Izvorski, T. King, B. Nilsson, J. Toman, O. Tomić, M. Votruba, D. Zec and audiences at annual AATSEEL meetings (Billings 1994, Rudin 1993b, Rudin and Kramer 1994), Cornell University (Billings 1996a), FASL-5 (Rudin 1996), FLSM-4 (Rudin 1993a), and—in part—the University of Massachusetts (Rudin, King and Izvorski 1995). Any inconsistencies, mistakes, or misinterpretations of their worthwhile contributions, of course, are only our fault. Billings's contribution was supported primarily by a visiting fellowship at ZAS, Berlin, during the summer of 1996; thanks especially to Tracy Hall for making this visit possible. Additional support to Billings came from a Foreign Language Area Studies fellowship awarded by Cornell University.

- (3) a. Ne go vide li? (Macedonian)
 NEG him_{ACC} saw_{3.SG} Q
 b. *Ne go li vide?
 c. Ne li go vide?¹
 'Didn't (s)he see him?'
- (4) a. *Ne go vidja li? (Bulgarian)
 b. Ne go li vidja?
 NEG him_{ACC} Q saw_{3.SG}
 c. *Ne li go vidja?
 'Didn't (s)he see him?'
- (5) a. Bi mi dal li pari? (Macedonian)
 would me_{DAT} given_{M.SG} Q money
 b. *Bi li mi dal pari?
 'Would he give me money?'
- (6) a. *Bi mi dal li pari? (Bulgarian)
 b. Bi li mi dal pari?
 would_{3.SG} Q me_{DAT} given_{M.SG} money
 'Would he give me money?'

Examples (1) through (6) all involve pronominal clitics; *go* 'him_{ACC}' or *mi* 'me_{DAT}'.² In *li* questions without other clitics, the strikingly divergent pattern of grammatical word orders disappears; in fact, normal word order is often identical in the two languages; compare the (a) and (b) versions of (7) through (9):

- (7) a. Zboruvate li angliski? (Macedonian)
 speak_{2.PL} Q English
 b. Govorite li angliski? (Bulgarian)
 speak_{2.PL} Q English
 'Do you speak English?'
- (8) a. Kniga li procita Anna? (Macedonian)
 book Q read_{3.SG}
 b. Kniga li procete Anna? (Bulgarian)
 book Q read_{3.SG}
 'Did Anna read a book?'

¹ Not all Macedonian speakers accept (3c). Olga Tomić has suggested to us that those who do may be confusing it with *neli* 'isn't it?'. See also our discussion of Enlarged Stress Domain in §4.2 below. Regarding the gloss of (3c), cf. §4.2 below, especially ex. (28b).

² Cf. Avgustinova 1994 and Hauge 1976 for a full discussion of the clitic system of Bulgarian. Cf. the end of §4.4 below regarding the differing accentuation of *bi* in (5)-(6).

- (9) a. Od dve poluistini stanuva li celinja? (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 special rules in each language for the placement of *li* relative to other clitics, or different positions for clitics 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 conditions on word order with clitics do differ between the two languages, but the relevant conditions are prosodic, not syntactic. We adopt the analysis proposed by Rudin, King, and Izvorski 1995 and Izvorski, King, and Rudin 1996 for Bulgarian *li* questions, and show that it accounts for the corresponding Macedonian construction as well. In fact, the previously proposed structure is arguably clearer in Macedonian, where it is not obscured by certain prosodically controlled word-order changes. Such an analysis of *li* questions in Bulgarian is strengthened by this cross-linguistic comparison.

Questions with *li* in Bulgarian have received quite a bit of attention in the recent theoretical literature (see especially Rivero 1993, King 1993: 146–55/1994: 113–18/1995: 156–63, Izvorski 1994, Penčev 1993 and Rudin 1992; 1993a). But to the best of our knowledge, Macedonian *li* questions have not been analyzed in any detail,³ although reference grammars contain brief descriptions, Friedman's (1993: 286–87) being the most complete.⁴

3. Syntactic Analysis

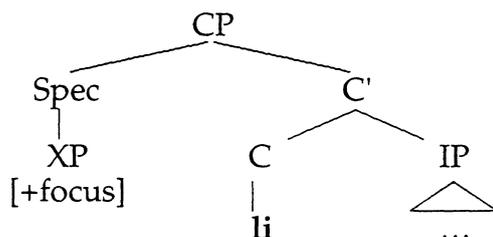
In both Macedonian and Bulgarian, *li* is a yes/no-interrogative particle which can also check a focus feature. As an enclitic, it is suffixed to a stressed element. We assume, with many recent analyses, that *li* is in C. (For arguments, see Rudin 1993a and Rivero 1993.) When C is [+focus], it checks a [+focus] feature on a fronted focus phrase in SpecCP (so-called specifier-head agreement), as in the tree in (10). Otherwise, when no focus phrase precedes *li*, the verb must raise and be

³ Englund 1977 includes a relatively large corpus study of yes/no questions in both Bulgarian and Macedonian. While empirically very complete, Englund's study stops short of any extensive analysis. Tomić (1996a: 511) discusses Macedonian *li* briefly. (We were not able to locate Englund 1979 or Tomić 1996b in time for this paper. From their titles, these works promise to provide such analysis.)

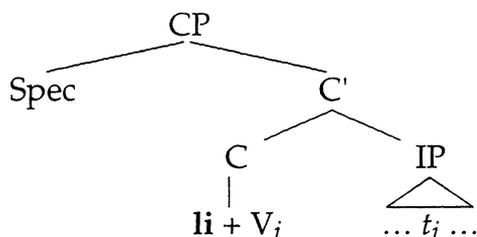
⁴ Much of this analysis holds for Russian as well (King 1993: 134–44/1994: 92–110/1995: 137–53; Rudin, King and Izvorski 1995), which has both the structures in (10) and (11). (Cf. Billings 1996b, however, for a phrasal-affix analysis of Russian *li*.) In Serbo-Croatian (Wayles Browne p.c., Mihaljević 1996, Rivero 1993, Wilder and Čavar 1994) and Czech (Toman 1996: 508–09), *li* is limited to the structure in (11); (10) is not attested in those languages. Unlike modern (Serbo-)Croatian, Mihaljević 1996 reports, Croatian Church Slavonic did allow non-verbal elements to precede *li*. The other remaining South Slavic language, Slovenian, apparently no longer uses *li* as an independent morpheme (cf., however, SSKJ 1975: 600, which reports archaic examples, as well as one apparently clause-initial example of *li!*).

head-incorporated into C (V-to-C movement) to check this [+focus] feature, as in the tree in (11).⁵

(10)



(11)



Structure (10) is exemplified by the sentences in (8), where *kniga* is the phrase under focus. Structure (11) is seen in both (7) and (9); the portion of the tree labeled “*li + V*” is realized in these sentences as verb **followed** by *li* (*zboruvate li*, for instance). For reasons which will become clear below, we analyze this as right-adjunction of *V* to *li*, followed by prosodic inversion (following Halpern 1992/1995). In (9), in addition to *V*-raising, a non-focused XP (a topic phrase, *od dve poluistina*) is fronted to a position higher than SpecCP (probably adjoined to CP). It is not in a specifier-head relation with *li*, and therefore has no features checked by *li*. *V*-to-*C* raising is necessary to support the interrogative feature of *li* here, showing that *li* is not simply a second-position clitic (or clausal affix), but rather an element in the phrase structure.

The problematic cases with clitics, seen in (1) through (6), also have the structure in (11). The structure here, however, is less obvious; *li* does not always appear suffixed to the verb. We believe, however, that the facts in all of these cases are accounted for automatically, assuming the structure in (11) and given the existence in one or the other language of four prosodic distinctions.

4. Prosodic Distinctions

Macedonian and Bulgarian each manifest certain prosodic phenomena which affect the position of *li*. Before discussing these four phenomena, however, however, we provide some background on the prosodic system of the two languages' clitics. (Numbered examples throughout this section show clitics *italicized*, lexical words underlined, stressed syllables in ALL-CAPS, and syllable breaks with dots.)

⁵ Slightly different proposals, such as those of Izvorski 1993, in which *li* is the head of FocusP rather than CP, would also be compatible with our analysis of Macedonian. We will not defend the details of the structures sketched in (10) and (11) here; the point is simply that in Macedonian, as in Bulgarian, *li* either incorporates a verb or checks a focus feature on an immediately preceding focused phrase in *li*'s specifier (SpecCP).

4.1 Primer on the Languages' Clitic-Prosody Systems

The two languages' prosodic systems, especially the stress system within the word, differ significantly, requiring separate descriptions. We begin with Macedonian, showing how the antepenultimate-stress system is especially useful in elucidating the uniqueness of *li* as a clitic. We then follow with a point-by-point comparison with Bulgarian, showing the specific ways in which the two differ.⁶

4.1.1 The Macedonian Clitic-Prosody System

Our description here of the Macedonian system is drawn from several works, many of which deal with the theoretical problem of accounting for antepenultimate stress—a somewhat exotic pattern cross-linguistically.⁷ We refrain from entering into the somewhat lively debate about just how antepenultimate stress is to be formalized, assuming simply that such a mechanism exists. We concentrate instead on how to fit *li* into such a system, something that has been ignored to date in the literature, to our knowledge.

Macedonian's antepenultimate stress⁸ allows us to assess whether a particular clitic is part of the same prosodic word (PrWd) with the lexical word

⁶ Comparative works of the Macedonian and Bulgarian nominal (type-II and-III) clitics include Tomić 1996a and Elson 1976. See these especially for discussion of their distribution. For example, Macedonian shows a tripartite proximal-neutral-distal distinction, while some Bulgarian noun classes show NOM/object distinctions.

⁷ These works on the theoretical issues surrounding Macedonian antepenultimate stress (some of which discuss the related issue of penultimate stress in Polish) include the following: Baerman (1996), Comrie (1976), Deevy (1995), Franks (1987; 1989; 1991), Garde (1968), Halle and Kenstowicz (1991), Hammond (1989), Kager (1993) and Kenstowicz (1991).

⁸ See works listed in the preceding footnote for discussion of words with exceptional stress. These have either penultimate or final stress. As the following two representatives of each type of exception show (respectively), however, the addition of syllables (such as the plural marker or an article) to the end of the word regularize them to antepenultimate stress:

	INDEF.SG	DEF.SG	INDEF.PL	DEF.PL	Gloss
(i)	<u>te.le.VI.zor</u>	<u>te.le.VI.zo.rot</u>	<u>te.le.VI.zo.ri</u>	<u>te.le.vi.ZO.ri.te</u>	'television'
(ii)	<u>de.le.GAT</u>	<u>de.le.GA.tot</u>	<u>de.le.GA.ti</u>	<u>de.le.GA.ti.te</u>	'delegate'

That is, as shown by (i), whereas the INDEF.SG has exceptional penult stress, the addition of one syllable (in either the DEF.SG or INDEF.PL columns) keeps the stress peak on the same vowel, thus giving these forms non-exceptional antepenultimate stress. Moreover, the addition of a second syllable (shown in the DEF.PL column) actually shifts the stress peak to the next vowel, keeping this form antepenultimate in stress. Example (ii) shows this more gradually: The INDEF.SG form is two syllables out of place, while the DEF.SG and INDEF.PL columns are one syllable out of place. Finally, the DEF.PL form shows regular stress, on the antepenult. Neither of these exception types, therefore, involves stress *earlier* than the antepenult. There is one other type of exception of a different type, exhibited by the verbal-adverb (= gerund) form only, as shown in (iii) and (iv):

(iii)	<u>no.SEI.ki</u>	<u>no.SEI.ki go</u>	<u>no.SEI.ki mu ja</u>		
	'bringing'	'bringing him'	'bringing him it(fem)'		[≈ exx. 56a-c in Franks (1987: 128)]
(iv)	<u>VI.vaj.ki</u>	<u>VI.vaj.ki go</u>	<u>so.op.ŠTU.vaj.ki</u>	<u>so.op.ŠTU.vaj.ki mu</u>	
	'calling'	'calling him'	'announcing'	'notifying him'	[≈ exx. 57a-d in <i>Ibid.</i>]

As we show below, the addition of enclitics to non-finite verbal forms shifts stress rightward. Not so with this part of speech, which traditionally has fixed stress on the first syllable of the *-ejki/-ajki* suffix, as shown in (iii). Any added clitics fail to attract stress, even to the point of having pre-antepenultimate stress. In another style the verbal adverb has acquired regular antepenultimate

(NB: in (19) *ti* is not a clitic, but rather the word-stressed, nominative-case pronoun.) We do not, however, assume that *li* is a clausal affix, merely prosodically adjoined to the clause's first word, as proposed for Russian *li* by Billings (1994, 1996b), for example. Instead, as shown in (10) and (11), *li* is in C; prosodic inversion takes place only if no element dominated by CP precedes *li*.

Type-IV clitics, unlike types I through III, are unique in being able to appear initially., as shown in (20a-c):¹³

- (20) a. *mi go KA.ža.le* (three-syllable verb)
 me_{DAT} it_{ACC} said_{PL}
 'They said it to me.'
- b. *mi go DA.le* (two-syllable verb)
 me_{DAT} it_{ACC} gave_{PL}
 'They gave it to me.'
- c. *mi go DAL* (one-syllable verb)
 me_{DAT} it_{ACC} gave_{M.SG}
 'He gave it to me.'

In other words, there exists no non-initiality requirement on type-IV clitics in Macedonian.

Note also that whereas post-verbal type-IV clitics affect the place of stress on the verb, *mi* and *go* in (20) do not. This stress asymmetry has been observed in Romance languages.¹⁴ Macedonian type-IV clitics, as in some of these Romance languages as well, precede only finite verbs.¹⁵

One (always) pre-verbal element, the negative particle *ne*, which in some cases looks like a clitic, is inherently accented in Macedonian (one of the main

¹³ Examples (1a) and (5a) also show this point. See fn. 2 regarding the cliticness of *bi*.

¹⁴ Cf. Peperkamp 1995 for a summary of the literature on the dual-position clitics in Romance. Specifically, Macedonian appears to be very similar to certain Lucanian dialects of Italian. As Peperkamp (1995: 122, citing Lüdtkke 1979: 31 in part) reports, Lucanian words show stress on one of the last three syllables and the addition of enclitics and suffixes both regularize the stress of the suffixed and/or encliticized stem to penultimate stress. (Macedonian, as a preceding footnote mentions, has words with stresses in the same final-trisyllabic window, with the addition of suffixes and non-*li* enclitics regularizing the stress, in the case of Macedonian, to antepenultimate position.) Garde (1968: 32) and Kenstowicz (1991) also point out this Macedonian-Italian similarity.

¹⁵ We have uncovered the following two exceptions, of the same kind, to this description:

- (i) *ne ME da.vaj MAJ.ko* 'Don't give me (in marriage), mother!'
 NEG me(acc) give(imperative) mother(vocative) [Lunt (1952: 22, fn. 1)]
- (ii) *Ne go gledaj!* 'Don't look at him!'
 NEG him(acc) look(imperative) [= ex. 28 in Alexander (1994: 10)]

Lunt implies that this order is marked (but shows ESD diacritics!). Alexander marks (ii) with a question mark and shows the preferred order, *Ne gledaj go!* [= her ex. 29], without marking stress in either example. These forms are significant from a prosodic standpoint, as Alexander points out, because those speakers who use(d) them appear to merely have a non-initiality requirement on clitics of non-finite verb forms—Wackernagel's (1892) Law in Alexander's terminology—because non-finite verbal forms are frequently the first lexically accented word of the clause. Those who don't use forms like (i) and (ii) appear to order their verbal clitics as in Romance, discussed in the preceding fn.

assertions of Garde 1968).¹⁶ As (21) shows, whereas the type-IV clitics *mu* and *go* are inherently unaccented, *ne* is accented.

- (21) NE *mi* *go* DA.le
 NEG me_{DAT} it_{ACC} gave_{PL}
 'they didn't give it to me'

Example (21) does not show clearly which lexical (underlined) word hosts the clitics. Two plausible prosodic organizations are shown in (22a-b):

- (22) a. [NE] [*mi go DA.le*]
 b. [NE mi go] [DA.le]

There are a few reasons to favor the bracketing in (22a): First of all, these clitics are syntactically ordered preceding the finite verb; the null hypothesis is that the prosody matches the syntax. Another reason to favor (22a) is the behavior of such clitics when the verb is clause-initial, as in (20a-c). If these clitics are hosted by any word prosodically, it must be by the verb, perhaps by so-called stray adjunction.

Another argument in favor of (22b) is shown in (23), in which there is no overt verb:¹⁷

- (23) ka.mo *MI ti go*
 where-to me_{DAT} you_{DAT.SG/your_{SG}} it_{ACC}
 'where (should) I (put) it for you?' [Elson (1993: 157)]

In the case of (23), the only lexical word is the *wh*-interrogative *kamo*. Once there are three syllables worth of clitics, then the stress shifts off of the lexical word and on to the third (monosyllabic) clitic from the end. This suggests that the clitics in (21) are prosodically hosted by the **preceding** lexical word *ne*.

While the data in (20) and (23) suggest that clitics more naturally adjoin to a preceding prosodic host, these data are inconclusive. Example (23) also looks like stray adjunction, as in (20a-c). That is, when clitics have a lexical-word neighbor on only one side, then they will be hosted prosodically by that word. What we really need is an example like (21), but with at least **three** syllables worth of verbal clitics between the two lexical words, like (24):¹⁸

¹⁶ Anderson (1996: 188–89) offers a different account for the unique properties of *ne* in Macedonian, considering it a clitic which is positioned differently from the other clitics.

¹⁷ Ex. 19d in Franks (1989: 561) glosses this same example as 'Where did that thing of yours get to on me?' (Elson 1993, incidentally, was apparently written unaware of Franks 1989.) Both Elson and Franks apparently got this example from Koneski [1957: 123/]1967: 163, which doesn't have glosses, because it's written in Macedonian. This example, furthermore, does not appear in Lunt or Garde (which would have glosses, at least in French in the latter case). We have added the word-for-word glosses and part-of-speech labels, which shows the type-IV and -III interpretations of *ti*, respectively.

¹⁸ Elson (1993: 152–53) reports the following pair of examples; see §4.2 regarding (ii).

- (i) ne *SME mu go ZE.le* (ii) ne sme mu GO ze.le
 NEG are_{1.PL} him_{DAT} it_{ACC} took_{PL}
 'We didn't take it from him.'

- (24) NE *sme* *mu* *go* DA.le
 NEG are_{1.PL} him_{DAT} it_{ACC} given_{PL}
 'We didn't give it to him.'

This example shows that three intervening clitics fail to draw stress off of *ne*, which indicates that the bracketing in (22a) is correct, with the proviso that only prosodic enclitics affect stress.

To summarize this subsection, Macedonian has clitics with four different kinds of properties: *li*, in type I, is always prosodically enclitic and never initial, but, unlike all other clitics, fails to affect stress. Like *li*, the definite article and possessive clitics (types II and III) are non-initial (within a noun phrase) and prosodically enclitic, but unlike *li*, always affect stress. Finally, the type-IV clitics precede finite verbs and follow non-finite ones and are always hosted by the verb.

4.1.2 The Bulgarian Clitic-Prosody System

In this subsection we show the aspects of the Bulgarian clitic system that differ from the corresponding Macedonian ones described in the preceding subsection. In more than one aspect we simply note that the Bulgarian system is different, without giving as detailed a description as we did of the Macedonian system. We defer instead to the very detailed account in Hauge 1976.¹⁹

In Bulgarian, stress is largely unpredictable. That is, the location of stress (or its pattern of assignment) is lexically encoded. Stress may fall on any syllable of a word, and is usually unaffected by the addition of clitics. (A partial exception is the definite article, which in some stress paradigms takes stress on itself:

(Stress notation modified; word-for-word glosses added; sentential gloss unchanged.) Elson says clearly that the three clitics are hosted prosodically by *ne*. Our informants rejected example (i), preferring instead the order in (50a). Elson (1993: 157, n. 1) glosses and attributes this and other data in the article with the following acknowledgment: "Items cited for illustrative purposes or their models, are from Lunt 1952: 21–25, Koneski 1967: 139–210, or Garde 1968." Indeed, example (ii)—the acceptability of which we don't dispute—appears in Garde 1968: 31 and Lunt 1952: 23. The source of Elson's assumption, that the clitics are hosted by *ne*, seems to be Garde (1968: 36):

(iii) — / NE — *sme mu go* / ZELE — → — / NE *sme mu gó zele* — [sic.]

Garde's abstract notation implies that whereas on the left side of the arrow [= some sort of underlying representation prior to application of ESD] the (all-caps) lexically accented stems *ne* and *zele*, with the clitics hosted by *ne*, the right side of the arrow [= the combined underlying and surface representations of the ESD form] has only *ne* with accent and everything hosted prosodically by it, with actual stress indicated by the acute accent on *gó*. Elson (1993: 152–53), while arguing against much of Garde's proposal, appears to espouse the left-hand side of (iii), assuming the right side of (iii) and the form in (i) to be attested. Our data on *li*-insertion below (in §4.2), specifically in (35a), show additional evidence that the clitics are hosted prosodically by the verb. Still, Macedonian—and Balkan in general—being a very diverse dialectal situation, we leave open the possibility that (iii) is attested for some speaker somewhere.

¹⁹Anderson (1996: 188) incorrectly characterizes the ordering of type-IV languages in Bulgarian (and Macedonian) "follow gerunds, infinitives and imperatives." (i) neither Bulgarian nor Macedonian has an infinitive; (ii) as both Hauge (1976: 5) and Alexander (1994: 9) point out, such clitics precede non-initial imperative verbs as well in Bulgarian.

This possibility of stressing two lexically accented words as a single PrWd has been called “enlarged stress domain” (Franks 1987, also referred to as “collocational stress” in Elson 1993 and “accentual units” in Alexander 1994), as shown in (29) through (32). In the (a) examples each (underlined) lexical word receives the predictable stress (antepenult if at least trisyllabic; otherwise, initial). In the (b) examples, however, the entire two-word domain receives a single PrWd stress, on the antepenult. Aside from adjective + noun, shown in (29), the other word pairs reported in the literature are preposition + noun, *wh*-interrogative + verb, and negation + verb, shown in (30) through (32), respectively. These four environments are elaborated as well in Elson (1993) and Franks (1989).²¹

	Without ESD	With ESD
(29) a.	<u>LE.va.ta</u> <u>NO.ga</u> left+the foot 'the left foot'	b. <u>le.va.TA</u> <u>no.ga</u> left+the foot 'the left foot'
(30) a.	<u>O.ko.lu</u> <u>TR.lo</u> near sheep-pen	b. <u>o.ko.LU</u> <u>tr.lo</u> near sheep-pen
(31) a.	<u>KOJ</u> <u>RE.če</u> who _{NOM} said _{3.SG}	b. <u>KOJ</u> <u>re.če</u> who _{NOM} said _{3.SG}
(32) a.	<u>NE</u> <i>mi</i> <i>go</i> <u>DA.le</u> NEG me _{DAT} it _{ACC} gave _{PL} 'they didn't give me it'	b. <u>ne</u> <i>mi</i> <i>GO</i> <u>da.le</u> NEG me _{DAT} it _{ACC} gave _{PL} 'they didn't give me it'

Additionally, as (29) and (32) show, clitics can appear between the lexical words. In (29) the definite article *-ta* is enclitic to the first word of the noun phrase; in (32) the clitics *mi* and *go* are syntactically ordered before the finite verb. The environment in (31) also allows medial clitics.²²

As we show above (at the end of §4.1.1), the verb is the **prosodic** host of the clitics *mu* and *go* in (32a). We repeat example (24) as (33a), adding its ESD

²¹ The ESD forms in (9b) and (10b) are now quite marked in Contemporary Standard Macedonian, considered as either archaic or dialectal. We cite them just once, nonetheless to report the extent of ESD in the language. Alexander (1994: 11) also lists the following ESD example. Cf. Lunt (1952: 24–25) for further discussion.

- (i) dobre *TE* najdov
well you(acc) found(1.sg)
'Welcome!' (literally: 'I found you well')

Alexander (and we) cannot explain this ESD form, a fixed expression, in syntactic terms.

²² Two peculiarities of ESD occur when the latter lexical stem is monosyllabic: 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):

- (i) ne *sum mu* *GO* zel 'I didn't take it from him.' [Lunt (1952: 23)]
NEG am him it took (cf. *ne *sum MU* *go* zel)
- (ii) ne *BI* dal *or* NE *bi* dal '(He) should not have given ...'
NEG should gave NEG should gave [= ex. 18a in Franks (1989: 559)]

The second peculiarity is an exception to Franks's monosyllabic-head effect just in case the entire ESDomain consists of exactly three syllables, as shown in (ii). Examples (i) and (ii) also have one non-ESD variant each: NE *sum mu* *go* ZEL, NE *bi* DAL. Kepeski and Pogačnik (1968) provide an opportune pair, similar to (ii): doBAR den 'good day', DObra noK 'good night'.

counterpart in (33b). The bracketings in (34a-b) represent the prosodic organizations of (32a-b). We avoid the debate in the ESD literature about whether one of the two lexical words becomes a clitic.

- | Without ESD | With ESD |
|--|----------------------------------|
| (33) a. <u>NE</u> <i>sme mu go DA.le</i>
NEG are _{1.PL} him _{DAT} it _{ACC} gave _{PL}
'We didn't give it to him.' | b. <u>ne sme mu GO da.le</u> |
| (34) a. [<u>NE</u>] [<i>sme mu go DA.le</i>] | b. [<u>ne sme mu GO da.le</u>] |

In addition to the three-syllables-worth-of-clitics test in (24), the bracketing in (34a) can be tested by turning the clause into a yes/no question using *li*, as shown in (35) and (36):²³

- | | |
|--|-----------------------------------|
| (35) a. <u>NE</u> <i>li sme mu go DA.le</i>
NEG Q are _{1.PL} him _{DAT} it _{ACC} gave _{PL} | b. * <u>ne sme mu GO li da.le</u> |
| (36) b. * <u>NE</u> <i>sme mu go li DA.le</i>
'Didn't we give it to him?' | b. <u>ne sme mu GO da.le li</u> |

The grammatical positions of *li*, depending on whether there is ESD, are in (35a) and (36b). There are three plausible hypotheses about the placement of *li* worth considering—assuming a prosodic-inversion account such as Halpern's (1992/1995)—shown in (37a-c):

- (37) a. Hypothesis A: *li* follows first PrWd **stress** [Wackernagel 1892].
 b. Hypothesis B: *li* follows first PrWd **domain**,
 assuming the structure in (22b) above: [NE *mi go*] [DA.le].
 c. Hypothesis C: *li* follows first PrWd **domain**,
 assuming the structure in (22a) above: [NE] [*mi go DA.le*].

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 the form in (36b), but incorrectly predicts (36a). Hypothesis C is the only one to correctly predict both of the attested forms: (35a) and (36b). The clitic *li*, therefore, corroborates the correctness of our analysis above in (22a), as shown first by the datum in (33a).

- | | |
|---|--|
| (38) a. <u>ne</u> <i>sum ti go DA.la li?</i> (Macedonian, with ESD)
NEG am _{1.SG} you _{DAT.SG} it _{ACC} given _{F.SG} Q | |
| b. <u>ne</u> <i>li sum ti go DA.la?</i> (Macedonian, without ESD) | |
| c. <i>ne SÂM li ti go DA.la?</i> (Bulgarian)
'Haven't I given it to you?' | |

²³ We discuss *neli* vs *ne li* in fn. 1 above. Cf. also the following ungrammatical forms:

(i) NE *mi go DA.le li* (ii) *ne li mi GO dale

In (i) *li* follows two stresses, while in (ii) *li* follows no stresses—both illicit inversion.

ESD and non-ESD environments disproves one aspect of the now famous Wackernagel's Law (Wackernagel 1892), which describes peninitial clisis as following the first stress **peak**. In fact, as these data show, such clitics follow the first stress **domain**, passing up the chance to follow immediately after the stress. We also discuss the interaction of *li* in *wh* questions with ESD. This unique phenomenon in Macedonian also explains one constituent order difference with Bulgarian.

4.3 Optional Auxiliary-Accent in Macedonian

Clitic forms of 'be' in Macedonian appear to be accented, at least in some contexts, while the corresponding forms in Bulgarian are obligatorily stressed after *ne* (cf. §4.5 below) and obligatorily unstressed elsewhere.

Englund (1977: 111) reports example (41a), quoting Živko Čingo's *Paskvelija*, without stress in the standard orthography, but with *ti* alone not in italics. We have merely transliterated the example:

- (41) a. — *Si li ti člen na mladinata?* (Macedonian)
 are_{2.SG} Q you_{NOM.SG} member of youth+the
- b. *SI li TI ČLEN na mla.DI.na.ta* (Macedonian)
 'Are you a member of the youth/young-people?'

(Note again, as in (19) above, that *ti* here is the lexically accented NOM-case form, homonymous with the unaccented DAT clitic.) Responses varied when we elicited stress from informants: Those who did accept (41a) without comment invariably stressed it as shown in (41b). This is predicted if one assumes that *li* must follow the first stressed word in structures **without** a focused XP in SpecCP, as shown in the tree in (10).²⁵

This example is especially interesting in light of the head-movement account we adopt (in §3) above. It shows what happens when the tensed verb is a clitic auxiliary, which moves to C (in order to check *li*'s focus feature) and there is no other verbal stem to host *li*. For those speakers who accept (41), the best means of keeping *li* from being initial seems to be a last-resort strategy of stressing the clitic auxiliary.²⁶

Those who rejected this order suggested (42a-b) instead:

- (42) a. *DA.li si ČLEN na mla.DI.na.ta* (Macedonian)
 b. *TI li si ČLEN na mla.DI.na.ta* (Macedonian)

Using *li*'s stressed allomorph *dali*, in (41c), is discussed (in §5) below.

²⁵ The stress on *ti* in (41b) is not very pronounced phonetically. Some authors (cf. Hauge 1976) list NOM-case pronouns as separate PrWds but don't mark stress on them. Lunt (1952) doesn't however indicate word stress on such pronouns.

²⁶ Examples similar to the preceding Macedonian ones are also attested in Bulgarian. Hauge (1976: 2-3) lists examples in which clitic forms of 'be' are stressed, accounting for most of these by either ellipsis or displacement of the would-be host of the clitic, leaving it stranded in clause-final position. Hauge has no explanation, however, for one example with prosodic and syntactic structure and word order seemingly identical to that of (41).

It is not clear, however, what the structure of (41d) is. Two possible S-structures—**prior** to any prosodic inversion—are shown in (43a-c):

- (43) a. [CP [SpecCP ti] [C *li*] [IP [I *si*] ... [PP *na mla.di.na.ta*] PP]IP]CP
 b. [CP [C *li*] [IP [SpecIP ti] [I *si*] ... [PP *na mla.di.na.ta*] PP]IP]CP

In (43a) *ti* is focused (i.e., moved to SpecCP), as diagrammed arboreally in (10) above. This structure does not require prosodic inversion and merely stresses the correct syllable in each PrWd, as shown in (42b). The structure in (43b) shows *ti* in SpecIP. This structure merely requires *li* to invert past the first stressed word, *ti*, in order to keep *li* prosodically enclitic to some word in this clause.²⁷ The choice between the structures in (43a-b) might be distinguished phonetically by differing accentuation on *ti*. We have not conducted such tests and merely present both.

Interestingly, Macedonian has lexically accented 'be' forms, as does Bulgarian. These prosodically heavy forms, formed from the stem /bid-/ (/bâd-/ in Bulgarian). These accented stems, as is apparent from Kramer 1993, are used only as auxiliaries, never as copulas.²⁸ Korubin (1974: 247–48) also points this distinction, supplying additional examples corresponding to (41) and (42).²⁹ Thus, these accented stems are not available as ways of making these clitics accented.

Before leaving the issue of copula-stressing, we have one example which appears to involve the interaction of copula-stressing and ESD (cf. in §4.2 above):

- (44) a. ..., *ama ne e li toa otvoren* [...] ?
 but NEG is_{3.SG} Q it_{F.SG}/she_{SG} closed
 '..., but isn't it/she closed [...]?'
 b. *ama NE e li TO.a OT.vo.ren*

All our informants accepted (44a), a transliteration of Englund's example (1977: 115, quoting Taško Georgievski's *Zmiski vetar*), each of them supplying the stresses in (44b), which is, at first glance, problematic for the syntactic and prosodic-inversion accounts we adopt here. The problem is that if *ne* is inherently accented, then it should bear stress, with *e* encliticizing to it prosodically. Generally speaking, when *li* prosodically inverts, it appears between the first stressed word and any of its enclitics. This pattern would result in the order **ama ne li e* ... We suggest instead that ESD, between *ne* and the now-accented *e*, may be involved. If so, then *li* inverts to the attested place, after *ne*.

²⁷ The following structure might also be the S-structure of (42b):

(i) [CP [C *li*] [IP [I *si*] ... ti ... [PP *na mla.di.na.ta*] PP]IP]CP

In such a structure *li* would have to invert prosodically past the first stressed word, *ti*, resulting in the form **si TI li ČLEN na mla.DI.na.ta*; this leaves *si* in clause initial position. In our discussion of Macedonian type-IV clitics above in §4.1.1—cf. especially exx. (20), (21), (23), and surrounding discussion and footnotes—we show that type-IV clitics can be initial only if proclitic to a (lexically accented) finite verb form. When no such finite-verb host appears in the clause, as in (23), then these clitics appear to be enclitic to the first PrWd. If this is the case, then the structure in (i) is still plausible; *si* inverts as well.

²⁸ Hauge (1976: 16, 36–44) makes explicit the auxiliary/copula distinction in Bulgarian.

²⁹ Korubin (1974: 246) also shows that auxiliary clitics lack third-person forms.

To summarize this subsection, we have shown that clitic copulas can be accented under conditions that are still not clear to us. We also show one potential interaction of this phenomenon with ESD. In future work we hope to pursue the conditions under which such forms are possible, as well as how (if at all) their Bulgarian counterparts differ.

4.4 Inversion of Verbal Clitics in Bulgarian

Macedonian type-IV clitics precede the verb only when it finite (and are both prosodically and syntactically proclitic to it). Bulgarian type-IV clitics are also essentially syntactically proclitic to the verb. Unlike those of Macedonian, however, clitic pronominals and auxiliaries (not all type-IV clitics!) are restricted from being clause initial. In addition to *li* in both languages, type-IV clitics in Bulgarian are prohibited from being initial.³⁰ If no accented word appears in front of these clitics, prosodic inversion takes place (following Halpern 1992/1995). The effect of this process is clearly seen in the difference between the non-*li* examples in (45) through (48), as well as in the *li* questions in (1) and (2) above.

- (45) *me* BO.li U.vo.to (Macedonian)
 me_{ACC} hurts_{3.SG} ear+the
 'My ear hurts.'
- (46) a. bo.LI *me* u.XO.to (Bulgarian)
 hurts_{3.SG} me_{ACC} ear+the
 'My ear hurts.'
- b. u.XO.to *me* bo.LI (Bulgarian)
 ear+the me_{ACC} hurts_{3.SG}
 'My ear hurts.'
- c. **me* bo.LI u.XO.to (Bulgarian)
- (47) *ti* *ja* DA.dov (Macedonian)
 you_{DAT.SG} it_{ACC} gave_{1.SG}
 'I gave it to you.'
- (48) a. DA.dox *ti* *ja* (Bulgarian)
 gave_{1.SG} you_{DAT.SG} it_{ACC}
 'I gave it to you.'
- b. *AZ* *ti* *ja* DA.dox (Bulgarian)
 I_{NOM} you_{DAT.SG} it_{ACC} gave_{1.SG}
 'I gave it to you.'
- c. **ti* *ja* DA.dox (Bulgarian)

³⁰ Unlike *li* (in both languages), Bulgarian type-IV clitics must be non-initial in a slightly different domain. As we show in §4.1 above, *li* inverts if no other element dominated by CP appears in front of *li*. That is, adjuncts to CP do not count. Bulgarian type-IV clitics, however, can make use of adjuncts to CP, coordinating conjunctions and other material not dominated by the CP node. As Hauge (1976: 5) points out, however, type-IV clitics in Bulgarian are also prohibited from following a clause-internal pause. Thus, it seems that the crucial non-initiality domain for these is some sort of phonological phrase.

- (52) a. I.ma *li* DOJ.de.no *kaj* NAS? (Macedonian)
 has_{3.SG} Q come to us
 'Has (s)he been to our place?'
 b. BE.še *li* do.ŠLA? (Bulgarian)
 was_{3.SG} Q come_{F.SG}
 'Had she arrived?'
- (53) a. NE.ma *li da* VR.ne? (Macedonian)
 won't_{3.SG} Q to rain_{3.SG}
 b. NJA.ma *li da* va.LI? (Bulgarian)
 won't_{3.SG} Q to rain_{3.SG}
 'Isn't it going to rain?'

As we mention at the beginning of this subsection, not all type-IV clitics in Bulgarian are restricted from being clause-initial. In both languages the future particle *ke/šte* is an unstressable clitic, but in Bulgarian it differs from the other type-IV clitics in being able to begin a sentence; this then shields the other (non-*li*) clitics from being clause-initial:

- (54) a. *ke* *go* ZA.vr.šat *li* (Macedonian)
 MOD it_{ACC} finish_{3.PL} Q
 b. *šte* *go* SVÂR.šat *li* (Bulgarian)
 MOD it_{ACC} finish_{3.PL} Q
 'Will they finish it?'

On the other hand, the conditional stem /bi-/ is lexically stressed in Bulgarian but not in Macedonian, leading to the contrast shown above in (5) and (6). Whereas *bi* appears clause-initially in both (5a) and (6b), this element is distinct in the two languages. The irrealis element in Bulgarian is conjugated, showing person- and number-agreement and each form is stressed; the form *bi* in (6b) is the 3.SG (homophonous with the 2.SG) form (cf. Hauge 1976: 36). In Macedonian *bi* is an invariant clitic, behaving like any other type-IV clitic in that language.

To summarize this subsection, we have shown that Bulgarian, unlike Macedonian, has a non-initiality requirement on its clitic pronominals and auxiliaries (a subgroup of type IV). The modal *ke* is not, however, subject to non-initiality, and the conditional stem /bi-/ is not a clitic at all. These differences cause many clitic sequences to differ between the languages.

4.5 Negative Stress Shift

The second prosodic peculiarity of Bulgarian we will discuss has to do with the unique properties of the negative particle *ne*. In Bulgarian *ne* carries an inherent stress, which is realized on the **following** syntactic constituent, even if that following constituent happens to be a normally-unstressable clitic (see Halpern 1992/1995, Scatton 1984). The relevance of this fact for *li* questions should be clear at this point, given the role of stress in determining the position of *li*. (Izvorski 1994; Izvorski, King, and Rudin 1996; King 1993/1994/1995; Rudin 1990–91, 1992, 1993a, 1993b, 1996; Rudin, King, and Izvorski 1995; and Rudin and Kramer 1994

have recognized this.) Since *li* cliticizes to 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 word, and thus doesn't influence the placement of *li*. So, when *li* cliticizes to the first stressed element of the verb word (as in Bulgarian), the result is different: It ends up encliticized to the verb (in ESDs) or to *ne*, since the clitics are not stressed.

We have already seen examples of this in (3) and (4) above; another set is given in (55):

- (55) a. ne *mu* GO da.de *li* (Macedonian, with ESD)
 NEG him_{DAT} it_{ACC} gave_{3.SG} Q
- b. *ne* MU *li* *go* da.DE (Bulgarian)
 NEG him_{DAT} Q it_{ACC} gave_{3.SG}
 'Didn't (s)he give it to him?'

In (55b) *mu* is stressed in Bulgarian, as is *go* in (4b), because of the preceding *ne*, and *li* therefore must follow them. This does not happen in Macedonian.³¹ If no type-IV clitic is present, then the Bulgarian order is *ne* + verb + *li*, which appears like Macedonian ESD, but is instead the result of *ne* not having stress and (vacuously) stressing the following accented verb stem.

Thus, constructions with *li* and *ne* are complicated by two independent phenomena, causing Bulgarian and Macedonian to diverge markedly. ESD causes Macedonian *li* to appear after the second inherently accented word, while negative stress shift causes Bulgarian *li* to follow up to one clitic after *ne*.

To summarize this section, then:

- The two languages differ significantly in their word prosody. Macedonian has antepenultimate word stress, while Bulgarian has lexically-encoded stress location (§4.1).
- Macedonian allows certain two-word combinations, causing *li* to follow what appears to be two words in that language (§4.2).
- Macedonian also apparently allows certain copulas to be stressed, likewise affecting the position of *li* (§4.3).
- Bulgarian requires clitic auxiliaries and pronominals to be non-initial in the clause. Additionally, the conditional head in Bulgarian, unlike in Macedonian, is not a clitic. This does not affect the placement of *li* as such, but greatly confuses comparisons with Macedonian (§4.4).
- Bulgarian *ne*, the Neg head, has a special property of stressing the following element. Thus, when *ne* follows *li* at the beginning of the S-structure order, *li* must invert prosodically past not just *ne* but the following, stressed element as well (§4.5).

These prosodic differences cause Macedonian and Bulgarian to appear very divergent in their placement of *li*. In fact, the syntactic structure of the two languages, as shown in the preceding section, is quite uniform.

³¹ Englund (1977: 112), quoting Jovan Boškovski's *Izbor*, does list the following example: "*Ne ti li se čini deka pticana kako da ni potskažuva za zaludnosta na ova naše metkanje po ulicive?*" All of our informants rejected this order, putting *li* instead after *ne* (non-ESD) or after the verb (ESD).

5. Usage

Macedonian yes/no questions differ from those of Bulgarian in another way as well, this time not prosodic, but pragmatic.³² Unlike in Bulgarian, Macedonian *li* is optional; it alternates apparently rather freely with \emptyset as well as with the non-clitic yes/no-interrogative complementizer *dali*. Englund (1977) reports that in her literary corpus 60 percent of all yes/no questions in Bulgarian contained *li*, the remainder mostly formed with other question words, such as *nali* 'isn't it'. In Macedonian, only 30 percent of yes/no questions had *li*, and 44 percent (almost half!) had no question word; cf. Friedman 1993: 286–287 and Kramer 1986: 130–50.

This difference in the usage of *li* is borne out by a survey of questions in Kramer 1985, a phrase book of Macedonian. Out of 101 questions that would take *li* in Bulgarian, 52 have *li*, 29 have *dali*, and 20 have no overt question word. The three types of questions are apparently synonymous; when visiting the auto mechanic, for example, the tourist is advised to ask the three questions in (56):

- (56) a. *Imate maslo za avtomobil?* \emptyset (Macedonian)
have_{2.PL} oil for automobile
'Do you have oil for cars?'
- b. *Imate li auspuh?* *li* (Macedonian)
have_{2.PL} Q muffler
'Do you have a muffler?'
- c. *Dali imate svekicki?* *dali* (Macedonian)
Q have spark-plugs
'Do you have spark plugs?'

Only the second of these corresponds to a normal question in Bulgarian; a question formed with intonation alone, like (56a) is marginal if possible at all in Bulgarian, while *dali* in a main clause signals a rhetorical question in Bulgarian: 'I wonder if you might have spark plugs.'

The optionality of *li* does not bear directly on the syntax of *li* questions, but does affect judgments. Speakers may reject an example with *li* not because the syntax is wrong, but because they prefer *dali* or \emptyset . The reasons for this may be pragmatic or simply personal preference. One speaker we consulted, an 18-year-old woman, showed an especially strong preference for \emptyset questions, accepting questions with *li* only reluctantly. However, when forced to use *li* she had very clear intuitions about where in the sentence it could and could not go. Another speaker frequently commented that an intonation question would be more usual in everyday speech than one with *li*. This preference certainly leads to a difference in usage and the frequency of *li* questions in the Bulgarian and Macedonian, but it does not seem to be connected to any difference in the syntax of *li* itself.

6. Conclusion

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

³² Restan 1972 also discusses differences in *li* usage between the two languages.

might expect, the “deeper” syntax of the two languages is identical; the differences are due to the interaction of the syntax of *li* questions with a series of relatively “superficial” factors: differing prosodic constraints on clitics, idiosyncratic differences in the stress properties of particular lexical items, and differences in usage. This satisfying result underlines once again the utility of a parametric approach to the grammars of related languages.

References

- Alexander, Ronelle. (1994) “The Balkanization of Wackernagel’s law”. *Indiana Slavic studies* 7: 1–8. (G. Fowler, H. R. Cooper, Jr., and J. Z. Ludwig, eds. *Proceedings of the 9th Biennial Conference on Balkan and South Slavic Linguistics, Literature, and Folklore*. Bloomington, IN: Indiana University, Dept. of Slavic Languages.)
- 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(3–4): 165–91. (Special issue: M. Nespov, ed. *Phonology between words and phrases*.)
- Avgustinova, Tania. (1994) “On Bulgarian verb clitics.” *Journal of Slavic linguistics* 2(1): 29–47.
- Avgustinova, Tania and Karel Oliva. (1991) *The structure of Bulgarian verb complex*. Saarbrücken: Universität des Saarlandes, Computerlinguistik. (CLAUS [Computerlinguistik an der Universität des Saarlandes], 4.)
- Baerman, Matthew. (1996) “The emergence of prosodic constraints in Macedonian.” Presented at Workshop on conflicting constraints, Groningen.
- Billings, Loren A. (1994) “An Optimality approach to the syntax and prosody of discourse particles.” Presented at American Association of Teachers of Slavic and East European Languages conference, San Diego.
- Billings, Loren A. (1996a) “Macedonian enlarged stress domain and peninitial clisis”. Presented at Cornell University, September.
- Billings, Loren A. (1996b) “Conflicting prosodic and syntactic constraints on special clitics”. *ZAS papers in linguistics* 6: 43–50. (J. Kornfilt, ed. *Proceedings of the Workshop on the phonology, morphology and syntax of clitics*.)
- Billings, Loren, Christina Kramer, and Catherine Rudin (1996) “The unique prosodic properties of *li* in Macedonian.” To be presented at American Association of Teachers of Slavic and East European Languages conference, Washington, December.
- Ćavar, Damir. (1996a) “On cliticization in Croatian: Syntax or prosody?” *ZAS papers in linguistics* 6: 51–65. (J. Kornfilt, ed. *Proceedings of the Workshop on the phonology, morphology and syntax of clitics*.)
- Ćavar, Damir. (1996b) “Interface phenomena in Croatian and Polish” Presented at Universität Leipzig, November.
- 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(2–3): 227–40.

- Deevy, Patricia L. (1995) "An Optimality theoretic analysis of stress in Macedonian." J. N. Beckman et al, eds. *Papers in Optimality Theory*. Amherst: Graduate Linguistic Student Association, 138–66. (*University of Massachusetts occasional papers*, 18.)
- Elson, Mark J. (1976) "The indefinite article in Bulgarian and Macedonian." *Slavic and East European journal* 20(3): 273–79.
- Elson, Mark J. (1993) "Collocational stress in Contemporary Standard Macedonian." *Slavic and East European journal* 37(2): 149–61.
- Englund, Birgitta. (1977) *Yes/no-questions in Bulgarian and Macedonian: Form*. Stockholm: Almqvist & Wiksell International. (Acta Universitatis stockholmensis, Stockholm Slavic studies, 12.)
- Englund, Birgitta. (1979) "The function of yes/no-questions (on basis of Bulgarian and Macedonian material)." In *Papers in Slavonic linguistics*. Stockholm, 16–26. (Meddelanden från institutionen för slaviska och baltiska språk", 18.)
- Ewen, Robert Charles. (1979) *A grammar of Bulgarian clitics*. Ph.D. dissertation, U. of Washington.
- Franks, Steven L. (1987) "Regular and irregular stress in Macedonian." *International journal of Slavic linguistics and poetics* 35–36: 93–142.
- Franks, Steven (1989) "The monosyllabic head effect." *Natural language and linguistic theory* 7(4): 551–63.
- Franks, Steven (1991) "Diacritic extrametricality vs. diacritic accent: A reply to Hammond." *Phonology* 8(1): 145–61.
- Friedman, Victor. (1993) "Macedonian". B. Comrie and G. C. Corbett, eds. *The Slavonic languages* (chap. 6). London: Routledge, 249–305.
- Garde, Paul. (1968) "Note sur l'enclise et la proclise en macédonien." *Zbornik za filologiju i lingvistiku* [Novi Sad: Matica srpska] 11: 31–37.
- Halle, Morris and Michael Kenstowicz. (1991) "The Free Element Condition and cyclic vs noncyclic stress." *Linguistic inquiry* 22(3): 457–501.
- Halpern, Aaron Lars (1992/1995) *On the placement and morphology of clitics*. Stanford, CA: CSLI Publications. (Published version of his *Topics in the placement and morphology of clitics*. Ph.D. dissertation, Stanford U.)
- Hammond, Michael (1989) "Lexical stress in Macedonian and Polish." *Phonology* 6(1): 19–38.
- Hauge, Kjetil Rå. (1976) *The word order of predicate clitics in Bulgarian*. Oslo: Universitetet i Oslo, Slavisk-Baltisk Institutt. (*Meddelelser*, 10.)
- Ilievski, P. Xr. and K. Peev (1983) "Neobična inovacija vo dolnovardarskite govori (Prokliza pri imperativ)." *Makedonski jazik* 34: 105–13.
- Izvorski, Roumjana. (1993) "On WH-movement and focus movement in Bulgarian". Presented at CONSOLE 2, Universität Tübingen.
- Izvorski, Roumyana. (1994) "Yes-no questions in Bulgarian: Implications for phrase structure". Presented at 9th Biennial Conference on Balkan and South Slavic Linguistics, Literature, and Folklore, Indiana University, Bloomington.
- Izvorski, Roumyana, Tracy Holloway King, and Catherine Rudin. (1996) "Against *li* lowering in Bulgarian". To appear in *Lingua*.
- Kager, René. (1993) "Stress in windows". ms., Universiteit Utrecht.
- Kenstowicz, Michael. (1991) "Enclitic accent: Macedonian, Italian, Polish." P. M. Bertinetto et al, eds. *Certamen phonologicum II: Papers from the 1990 Cortona Phonology Meeting*. Torino: Rosenberg & Sellier, 173–85.

- Kepeski, Petar and Jože Pogačnik. (1968) *Makedonščina*. Ljubljana: Državna založba Slovenije.
- King, Tracy Holloway (1993/1994/1995) "Focus in yes-no questions." *Configuring topic and focus in Russian*. Stanford: CSLI Publications, 137-163 (chap. 6). (Published, somewhat revised version of (chap. 5 [sic.]) of her (1993) Ph.D. dissertation, Stanford U. This chapter also appeared as her (1994) "Focus in Russian yes-no questions". *Journal of Slavic linguistics* 2(1): 92-120.)
- Koneski, Blaže. (1957/1967) "Za akcentot". *Gramatika na makedonskiot literaturni jazik*. Skopje: Kultura. (Blaže Koneski: Izbrani dela vo sedum knigi, 6.)
- Korubin, B. (1974) "Mesto glagola *sum* kak vspomogatel'nogo i kak svjazki v makedonskom literaturnom jazyke." N. Ju. Švedova et al, eds. *Grammatičeskoe opisanie slavjanskix jazykov: Konceptii i metody*. Moskva: Nauka, 244-50.
- Kramer, Christina. (1985) *Anglisko-makedonski razgovornik*. Skopje: Univerzitet "Kiril i Metodij".
- Kramer, Christina E. (1986) *Analytic modality in Macedonian*. München: Verlag Otto Sagner. (Slavistische Beiträge 198.)
- Kramer, Christina. (1993) "The future in Macedonian". Presented at American Association of Teachers of Slavic and East European Languages conference, Toronto.
- Lüdtke, H. (1979) *Lucania*. Pisa: Pacini. (Profilo dei dialetti italiani 17.)
- Lunt, Horace G. (1979) *A grammar of the Macedonian literary language*. Skopje: Državno Knigoizdatelstvo na NR Makedonija.
- Mihaljević, Milan. (1996) "The interaction of *li* and negation in Croatian Church Slavonic". To appear in G. Zybatow and U. Junghanns, ed. *Formale Slavistik*. (Presented at the First European Conference on "Formal Description of Slavic Languages", 1995.)
- Mussafia, A. (1898) "Enclisi o proclisi del pronome personale atono qual oggetto". *Romania* 27: 145-46.
- Penčev, Jordan. (1993). *Bâlgarski sintaksis: Upravljenie i svârzvanie*. Plovdiv: Plovdivsko universitetsko izdatelstvo.
- Peperkamp, Sharon. (1996) "On the prosodic representation of clitics". U. Kleinhenz, ed. *Interfaces in phonology*. Berlin: Akademie Verlag, 102-27. (*Studia grammatica*, 41.)
- Restan, Per. (1972) *Sintaksis voprositel'nogo predloženiija; obščij vopros (Glavnym obrazom na materiale sovremennogo russkogo jazyka [Syntax of the interrogative sentence; yes-no questions (Mainly on the basis of Russian material)]*. Oslo: Universitetsforlaget.
- Rivero, María-Luisa. (1993) "Bulgarian and Serbo-Croatian yes-no questions: V⁰ raising to *-li* vs. *-li* hopping". *Linguistic inquiry* 24(3): 564-75.
- Rudin, Catherine. (1990-91) "Topic and focus in Bulgarian". *Acta linguistica hungarica* 40(3-4): 429-47.
- Rudin, Catherine. (1992) "Kakvo *li* e *li*: Interrogation and focusing in Bulgarian". To appear in *Balkanistika* 10. (Special issue: V. Friedman, ed., Gedenkschrift for Zbigniew Gołab.)
- Rudin, Catherine. (1993a) "On focus position and focus marking in Bulgarian questions". A. Davison et al, eds. *Papers from the 4th annual meeting of the Formal Linguistics Society of Midamerica*. Iowa City: Univ. of Iowa, 252-65.

- Rudin, Catherine. (1993b) "On the syntax of *li* questions in Bulgarian". Presented at American Association of Teachers of Slavic and East European Languages conference, Toronto.
- Rudin, Catherine. (1996) "Agr-O and Bulgarian pronominal clitics". To appear in S. L. Franks, ed. *Formal approaches to Slavic linguistics*, 5. Ann Arbor: Michigan Slavic Publications.
- Rudin, Catherine, Tracy Holloway King, and Roumyana Izvorski. (1995) "Focus in Bulgarian and Russian yes-no questions". Presented at the Workshop on Focus, Univ. of Massachusetts, Amherst.
- Rudin, Catherine and Christina Kramer. (1994) "*Li* questions in Macedonian". Presented at American Association of Teachers of Slavic and East European Languages conference, San Diego.
- Sadock, Jerrold M. (1991) *Autolexical syntax: A theory of parallel grammatical representations*. Chicago: University of Chicago Press.
- Scatton, Ernest. (1984) *A Reference Grammar of Modern Bulgarian*. Columbus: Slavica.
- [SSKG] (1975) *Slovar slovenskega knjižnega jezika*. Ljubljana: Slovenska akademija znanosti in umetnosti, Institut za slovenski jezik, v. 2 (I–Na).
- Toman, Jindřich. (1996) "A note on clitics and prosody". A. L. Halpern and A. M. Zwicky, eds. *Approaching second: Second position clitics and related phenomena*. Stanford, CA: CSLI Publications, 505–10 (chap. 15). (= CSLI lecture notes 61.)
- Tomić, Olga M. (1996a) "The Balkan Slavic nominal clitics." A. L. Halpern and A. M. Zwicky, eds. *Approaching second: Second position clitics and related phenomena*. Stanford, CA: CSLI Publications, 511–35 (chap. 16). (= CSLI lecture notes 61.)
- Tomić, Olga M. (1996b) "The Balkan Slavic clausal clitics." To appear in *Natural language and linguistic theory*. (Announced in *NLLT* 14(3).)
- Usikova, R. P. (1964) "Ob udarenii v sovremennom makedonskom jazyke". V. D. Koroljuk et al, eds. *Slavjanskaja i baltijskaja akcentologija*. Moskva: Nauka, 27–39. (Kratkie soobščeniya Instituta slavjanovedeniya, 41.)
- Usikova, R. P. (1985) *Makedonskij jazyk: Grammatičeskij očerk, teksty dlja čtenija c kommentarijami i slovarem*. Skopje: Makedonska kniga.
- Wackernagel, Jacob (1892) "Über ein Gesetz der indogermanischen Wortstellung." *Indogermanische Forschungen* 1: 333–436.
- Wilder, Chris and Damir Čavar. (1994) "Long head movement? Verb movement in cliticization in Croatian". *Lingua* 93: 1–58.
- Zec, Draga and Sharon Inkelas. (1990) "Prosodically constrained syntax." S. Inkelas and D. Zec, eds. *The phonology-syntax interface*. Chicago: University of Chicago Press, 365–78 (chap. 18).

[Billings]
 Institut für Slavistik
 Universität Leipzig
 Augustusplatz 9
 D–04109 Leipzig
 billings@rz.uni-leipzig.de

[Kramer]
 Dept. of Slavic Lang. and Lit.
 University of Toronto
 21 Sussex Ave.
 Toronto, Ont. M5S 1A1 Canada
 ce.kramer@utoronto.ca

[Rudin]
 Linguistics
 Humanities Division
 Wayne State College
 Wayne, NE 68787 USA
 crudin@wscgate.wsc.edu