

## Second Position Clitics in a Verb-Second Language: Conflict Resolution in Macedonian

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The main claim of this paper is that Macedonian (M) is both a verb-second (V2) and a second-position (P2) clitic language. That is, both clitics and the finite verb compete for second position, defined in terms of alignment within a particular domain. It is demonstrated that an optimality-theoretic resolution of this competition yields a complex pattern of pro- and encliticization.<sup>1</sup>

### 1. Characterizing the Macedonian Pattern

Among South Slavic languages, Bulgarian (B) is well-known for the fact that its pronominal and perfect auxiliary clitics cluster in P2. Some of these effects are shown in (1). In the absence of a subject -- B and M are null-subject languages -- either a past participle (b) or a finite verb (d) appears in clause-initial position.

- (1) a. Az **sŭm mu go** dal. (B)  
I have-1 to-him it given  
'I have given it to him'
- b. Dal **sŭm mu go**. (B)  
given have-1 to-him it  
'(I) have given it to him'
- c. Az **mu go** pokazax pismoto. (B)  
I to-him it showed-1 the letter  
'I showed him the letter'
- d. Pokazax **mu go** pismoto. (B)  
showed-1 to-him it the letter  
'(I) showed him the letter'

M is closely related to B; yet its clitic placement differs markedly from B.

- (2) a. **Ti go** dade.  
you it gave-3  
'(He) gave it to you'
- b. Davajki **mi ja**...  
give-ger to-me it  
'Giving it to me...'
- c. Daj **mu go**!  
give-imp to-me it  
'Give it to me!'

Clitics cluster in clause-initial position (2a) or in P2 (2b,c). There is a clear difference between (2a) and (2b): (2a) contains a finite V while (2b) contains a non-finite gerund. (2c) contains an imperative form. This distribution has led some scholars (Joseph, 1983; Tomić, 1996a) to propose the following generalization: M clitics are proclitics to finite lexical verbs and enclitics to non-finite verbs. This simple characterization fails, however, to extend to the full M pattern in (3).

- (3) a. **Sum ti go** dal.  
have-1 to-you it given  
'(I) have (supposedly) given it to you'
- b. Dojden **sum**.  
come have-1  
'(I) have come'
- c. Mil **si mi**.  
dear are-2 to-me  
'(You) are dear to me'

Keeping the null subject context constant, both pro- and encliticization are possible in the presence of a finite auxiliary clitic and a past participle: (3a) vs. (3b). Encliticization, but not procliticization, is found with predicate adjectives (and nouns): (3c). Joseph (1983) and Tomić (1996a) save their generalization by claiming that tensed verbs and *l*-participles (ending in *-l*: *dal*) count as finite in M while other

verbal forms -- gerunds, participles ending in *-t/-n*, adjectival/nominal predicates, and imperatives -- count as non-finite.

While this revised generalization allows for a simple description of the M pattern, it is problematic on two accounts. One, the claim that M imperatives are non-finite is at odds with their morphological properties. Two, *l*-participles essentially behave like other non-finite participles -- except with respect to the position of clitics. I take up the first point first.

Contemporary standard M has no infinitive. Not only do M imperatives exhibit morphology that is unique to imperatives but they also morphologically differentiate second person singular from second person plural, and from optatives.

(4)	Second singular	jadi!	'eat!'
	Second plural	jadite!	'eat!'
	Third singular	neka jade!	'let him eat!'
	First plural	da jademe!	'let us eat!'
	Third plural	neka jadete!	'let them eat!'

Independently of M, imperatives also have a temporal dimension (future) which is clearly absent in uncontroversial non-finite verb forms like infinitives and gerunds. On the basis of these general and M-internal properties, I conclude with Groen (1977) that M imperatives are morphologically finite.<sup>ii</sup>

Turning to *l*-participles, we note a number of properties inconsistent with treating them differently from other M participles. One, *l*-participles, just like *-n/-t* participles, are marked for gender and number but not for person. Two, they co-occur with a perfect auxiliary which is finite (with tense + person/number morphology). Treating *l*-participles as finite would amount to claiming that two verbal elements in a single sentence are finite, despite a lack of corresponding morphology for one of them. Finally, *l*-participles in other South-Slavic languages behave exactly like their non-finite participles, including with respect to cliticization.

Joseph (1983) does bring up an additional property of *l*-participles. In the third person (singular and plural), the auxiliary clitic they must occur with in the first and second person is obligatorily absent.

(5) First person	a. <b>Sum</b> rešil. '(I) have decided'	b. <b>Sme</b> rešile. '(We) have decided'
Second person	c. <b>Si</b> rešil. '(you-sg) have decided'	d. <b>Ste</b> rešile. '(you-pl) have decided'
Third person	e. Rešil. '(he has) decided'	f. Rešile. '(they have) decided'

Note however that this pattern does not establish that third person forms like (5e,f) are finite. The inflection of the *l*-participle only reflects number, as it does in first and second person, but not tense or person. Many morphosyntactic phenomena cross-linguistically -- ranging from case marking to anaphora distribution -- are governed by person-based hierarchies with third person typically behaving differently from first/second person. Note also that the corresponding clitic auxiliary may be optionally dropped in Bulgarian for some speakers in some contexts and in Serbo-Croatian in the presence of several verbs (Olga Tomić, p.c.). In these languages there is no evidence that the *l*-participles are anything but non-finite. Hence, from a broad

South-Slavic perspective, dropping the clitic auxiliary is independent from the finiteness issue.<sup>iii</sup>

This is not to say that the unique morphology *-l* of these participles is meaningless. In fact, *-l* is an evidentiality marker expressing a speaker's distancing from an event in time or reality (Lunt 1977; Friedman, 1993). It is typically used to express an unwitnessed event which a speaker reports as 'hearsay'. This function is, of course, quite distinct from finiteness.

The hypothesis I wish to entertain is that the M clitic distribution results from a competition between two features competing for realization in P2: [perfect] and [T] for [tensed/finite]. Under this view, there is a finiteness effect in M, namely a V2 effect.<sup>iv</sup> But its impact on clitics will be modulated by the presence of other features which may or may not compete with [T]. These features, as we shall see, include [imperative], [dative], etc. I will demonstrate that, viewed from the perspective of Optimality Theory (OT, Prince and Smolensky, 1993), the basic and elegant generalization proposed in Joseph (1983) and Tomić (1996a) can be retained without its complications because the deviations are the direct consequence of the optimization process. Before turning to the competition itself, I want first to argue that clitics are PF elements rather than syntactic ones.

## 2. Clitics as Phrasal Morphology

### 2.1. Clitic auxiliaries

Despite the prevailing belief among syntacticians that clitics are syntactic categories subject to the same type of operations as their non-clitic counterparts (i.e. verb movement, adjunction, incorporation, etc.), the empirical evidence in Balkan languages points to a different conclusion. Restricting ourselves here to M, many properties of its clitic auxiliaries are completely unexpected if they head syntactic projections (see Legendre 1997, 1998, to appear for an extensive discussion based on Bulgarian and Romanian). Balkan languages, typically, have two classes of auxiliaries which I shall refer to as auxiliary verbs and clitic auxiliaries. Auxiliary verbs include M *ima* 'have' and B *bjax* 'had' while clitic auxiliaries include M *ke*, B *šte* 'future' as well as M *sum*, B *sŭm* 'be'. Note that the former carry stress while the latter do not. What is of particular interest however is their respective syntactic properties. Put simply, clitic auxiliaries, contrary to auxiliary verbs, are syntactically inactive.

This can be seen in a number of syntactic contexts, one of which is subject-auxiliary (SA) inversion.

- |   |  |
|---|--|
| (8) a. <b>Ti ja</b> dade li Ana vaznata?<br>to-you it gave-3 Q A vase-the<br>'Did A. give the vase to you?' | c. <b>Ke ti ja</b> dade li Penka knjigata?<br>will to-you it gave-3 Q P book-the<br>'Will P. give you the book?' |
| b. <b>Go ima</b> li Ivan svrseno?<br>it have-3 Q I solved<br>'Has Ivan solved it?'                          | d. Kade <b>bi ja</b> stavil ti knjigata?<br>where would it put you book-the<br>'Where would you put the book?'   |

Sentence (8a) contains a lexical verb *dade*, (8b) an auxiliary verb *ima*, while (8c) and (8d) contain a clitic auxiliary, respectively *ke* and *bi*. Note that the overt subject follows the lexical and auxiliary verbs in (8a,b) but not the clitic auxiliary in (8c) and (8d). The absence of SA inversion in (8c) and (8d) does not make sense if *ke* and *bi*



rather than to the syntax. Moreover, if pronominal clitics were active in the syntax, we would expect blocking effects such as strong crossover effects. No such effects, however, are observed:

- (11) Čoveko<sub>t<sub>i</sub></sub> kogo<sub>i</sub> što go<sub>i</sub> vidov t<sub>i</sub>.  
 man whom that him saw-1  
 'The man whom I saw'

If clitic pronouns are heads of functional projections (Tomić, 1996a), they ought to block movement by virtue of the HMC. But they don't, as encliticization in imperatives and gerunds (2b,c) and (11) show. One might counter-argue that these constraints do not apply to adjoined elements and hence take pronominal clitics to be adjoined to heads. But if adjunction of clitics is a strategy to evade syntactic constraints, we have, in fact, an additional argument against treating clitics as syntactic objects.

To sum up, there is strong evidence that M clitic auxiliaries and pronouns are syntactically inactive, a conclusion which is inconsistent with the claim that clitics are syntactic atoms. Rather, it supports the view, most prominently put forward in Klavans (1985) and Anderson (1992), that clitics are elements of morphology. Among other things, clitics display, within a phrase, the same range of placement options as word-level affixes (initial, final, second-position, and penultimate). Like word-level affixes, they are positioned relative to an anchor point or host. They cluster and the internal order within a clitic sequence is invariant, as is the order of affixes attached to a word. I conclude with Anderson (1992) that clitics are phrasal affixes which instantiate functional features including [perfect], [future], etc. In the next section, I argue that a particular theory of morphology -- the alignment-based theory of Prince and Smolensky (1993) and McCarthy and Prince (1993a,b)-- is exactly the theory we need to explain the complex distribution of clitics in M. See also Anderson (1996).

### 3. Alignment-based Morphology

#### 3.1. Alignment constraints

Universally, clitics show clustering effects which distinguish them from their non-clitic counterparts. One important question to which existing syntactic accounts have failed to provide an answer is the following: why do they cluster? From the perspective of a theory based on the principle of optimization, the answer is simple: clitics cluster because they compete for a single position. Adapting Prince and Smolensky's 1993 analysis of infixes and penultimate stress to phrasal affixes, the clustering of clitics can be analyzed in terms of alignment with the edge of a particular domain. Clearly, only one clitic may be realized at the very edge of a given domain. Others will have to follow, striving to be as close as possible to the edge. This can be formally expressed by means of a gradient constraint EDGEMOST(F), borrowed from Prince and Smolensky's original work. [F] stands for any of the functional features under discussion. The conflict among the instantiations of EDGEMOST(F) is resolved by ranking EDGEMOST(ACCUSATIVE), EDGEMOST(PERFECT), etc. relative to one another.

A strict ranking of EDGEMOST constraints makes an important prediction: the

relative order of clitics in the cluster remains the same regardless of where the cluster appears, relative to its anchor point. There is considerable cross-linguistic evidence that this prediction is correct: the change from pro- to encliticization, or vice-versa, does not involve rearranging the clitics.

Where clitics cluster -- e.g. domain-initial (P1) vs. second position (P2) -- results from the relative ranking of EDGEMOST and a constraint called NONINITIAL (also adapted from Prince and Smolensky, 1993). If NONINITIAL outranks EDGEMOST, P2 clitics follow. This is the basic pattern in B.

- (12) Pročel **sŭm** knjigata. (B)  
 read have book-the  
 '(I) have read the book'

The competition is made most explicit by using standard OT tableaux.<sup>vii</sup>

T1. Bulgarian P2 clitics

	NONIN(F)	E(PERF)
a. [V' sŭm pročel knjigata] [perf]	*!	
b. [pročel sŭm knjigata]		⊗
c. [pročel knjigata sŭm]		**!

The input to optimization is assumed here to include the lexical items *pročel* and *knjigata* and their basic propositional structure, plus functional features.

In T1, candidate (a) loses because it violates higher-ranked NONINITIAL while candidate (c) loses because it incurs two violations of EDGEMOST, vs. one for the winner, candidate (b). That is, it is more important in Bulgarian to satisfy NONINITIAL than EDGEMOST(PERF). EDGEMOST violations are determined by the number of morphemes which separate a target clitic from the left edge of the V' domain.<sup>viii</sup>

Note some important properties of this analysis. There is no syntactic movement or LHM of the participle *pročel*. There is thus no HMC violation, contrary to Rivero (1994). There is no Prosodic Inversion (Halpern, 1995) or Morphological Merger (Embick and Izvorski, 1994) either -- these are PF movements designed to directly achieve P2.<sup>ix</sup> No movement exists because none is needed. By economy, the participle remains in situ. The alignment constraints responsible for the placement of clitics belong to the family of constraints independently needed for affixation.<sup>x</sup>

Returning to M, consider what examples like (13) reveal about the relative distribution of clitics.

- (13) a. **Ti** go dade.  
 to-you it gave-3  
 '(He) gave it to you'
- b. Mil **si** mi.  
 dear be-2 to-me  
 '(You) are dear to me'

In a null-subject context, finite verbs follow clitics, as shown in (13a). I propose to interpret this pattern as a V2-like pattern resulting from the partial ranking of the existing two alignment constraints: NONINITIAL(T) >> EDGEMOST(T) -- where T, to

avoid confusion with F(any feature), stands for Finiteness (an important component of which is Tense). On the other hand, clitics follow non-finite verb/predicate, as shown in (13b). This suggests that M clitics favor non-initial position as well: NONINITIAL(F) >> EDGEMOST(F). The outcome is of course a competition for non-initial position -- note that the verb ends up in third position (P3) if two clitics are present because two EDGEMOST(F) constraints push for a left edge realization while NONINITIAL(T) is satisfied by V in either P2 or P3. If present in the input, [T] prevails; hence [T] is realized on the verb in non-initial position while object clitics violate NONINITIAL(F) (13a). This reveals the relative ranking of the constraints pertaining to [T] and those pertaining to other features [F]: NONINITIAL(T) >> NONINITIAL(F). Finite verbs appear after clitics because the NONINITIAL constraint on [T] outweighs that of other features. This competition is formalized in tableau T2.

T2. Finite verbs

	NONIN(T)	NONIN(F)	E(DAT)	E(ACC)
☞ a. [ <sub>V</sub> ti go dade] [dat] [acc] [T]		⊗		⊗
b. [dade ti go]	*!		*	**
c. [ti dade go]		*		**!

From this competition-based approach immediately follows a number of predictions. One is that, in the absence of the finite feature [T], object clitics cluster in P2. That is, in the absence of constraint NONINITIAL(T), NONINITIAL(F) dominates and rules out the suboptimal candidate which contains domain-initial clitics.

The ranking NONINITIAL(F) >> EDGEMOST(F) insures P2 in the presence of a single F. This is the case for the presentative construction in (14a) which consists of an invariable adverb. It contrasts with the future construction in (14b).

- (14) a. Ene **go** čovekot.                      b. **Ke** dojdám.  
           here him man                              will come-1  
           'Here is the man'                        '(I) will come'

The M future is a periphrastic construction in which the future auxiliary is an invariable clitic. The lexical verb, on the other hand, appears in the perfective present. Under the present analysis, the future auxiliary is predicted to precede the finite verb.

Again this is because given the choice between placing a finite verb or a clitic in non-initial position, M opts for the first option. Thus the ranking -- NONINITIAL(T) >> NONINITIAL(F) >> EDGEMOST(F) >> EDGEMOST(T) -- entails procliticization with finite verbs and encliticization with non-finite verbs, the core pattern of M.

### 3.2. Pro- vs. Encliticization

Of greater interest are the deviations from the core pattern. These are summarized in (15). They include predicative constructions (15a) and the two past participle patterns in (15b,c). Recall that I have argued that all participles are non-finite. Yet (15c) shows encliticization while (15b) shows procliticization.

- (15) a. Mil *si mi*.  
 dear are-2 to me  
 'You are dear to me'
- b. *Sum ti go* dal.  
 have-1 to-you it given  
 '(I) have reportedly given it to you'
- c. Dojden *sum*.  
 come have-1  
 'I have come'

Note that clitic auxiliaries like *si*, *sum* are special from the perspective of the present feature-based approach. This is because they instantiate two separate features, [perfect] (subsuming copula and perfect auxiliary) and [T]. Now suppose that M [perfect] is basically like B[future], that is, it is a P1 clitic in an otherwise P2 clitic language. In terms of constraint ranking, this means that EDGEMOST(PERF) outranks NONINITIAL(F). We have a conflict: on the one hand, *sum* wants to be P1 because it instantiates [perf]; on the other, *sum* wants to be P2 because it instantiates [T] and [T] is subject to NONINITIAL(T) >> NONINITIAL(F). This conflict can be resolved by ranking EDGEMOST(PERF) equally with NONINITIAL(T). As a consequence, EDGEMOST(PERF) and NONINITIAL(T) violations cancel out and the optimal candidate is determined by lower ranked constraints.

In the case of predicate adjectives and *-n/-t* participles, the next lower constraint on the hierarchy is NONINITIAL(F), which precludes clitics in P1. There is one way and one way only to satisfy it: by encliticization. Both clitics and [T] cluster in P2, with [T/perf] preceding [dat] as shown in (15a,b). The reader may verify the outcome, based on tableaux T3 and T4.

T3. Predicate adjectives

	E(PERF)	NONIN(T)	NONIN(F)	E(DAT)
☞ a. [ <sub>v</sub> mil <i>si mi</i> ] [T],[perf] [dat]	⊗			⊗⊗
b. [ <i>si mi</i> mil]		*	*!	*
c. [ <i>mi si</i> mil]	*		*!	
d. [ <i>si mil mi</i> ]		*	*!	**

T4. *-n/-t* participles

	E(PERF)	NONIN(T)	NONIN(F)
☞ a. [ <sub>v</sub> dojden <i>sum</i> ] [T],[perf]	⊗		
b. [ <i>sum</i> dojden]		*	*!

If the effect is purely positional, it is predicted that other elements besides the past participle or the predicative adjective can serve as hosts of clitics and [T]. Emphatic subject pronouns can indeed serve as hosts, as shown in (16).

- (16) a. Ti **si** **mi** mil.  
 you are-2 to-me dear  
 'You are dear to me'
- b. Jas **sum** dojden.  
 I have-1 come  
 'I have come'

In M, modifiers precede the elements they modify. For example, adjectives precede nouns and degree adverbs precede adjectives (Tomić, 1996b).

- (17) a. Crvenana šapka.  
 red-the hat  
 'The red hat (over there)'
- b. Mošne rasprostranetata upotreba.  
 very widespread-the use  
 'The very widespread use'

If clitics and [T] truly compete for non-initial position and a predicate adjective occurs with a modifier, the clitic auxiliary is predicted to immediately follow the modifier. This prediction is correct, as shown in (18).

- (18) Mnogu **si** **mi** mil.  
 very are-2 to-me dear  
 '(You) are very dear to me'

Returning to *l*-participles (15c), recall that they encode an evidential feature, interpreted here as subject to the same alignment constraints as other features.

#### T5. *L*-participles

	E(PERF)	NIN(T)	NIN(F)	E(DAT )	E(ACC )	E(EVID)
☞ a. [ <sub>v</sub> <i>sum ti go</i> kazal] [T],[perf] [dat] [acc] [evid]		⊗	⊗	⊗	⊗⊗	⊗⊗⊗
b. [ <i>ti go sum</i> kazal]	**!		*		*	***
c. [kazal <i>sum ti go</i> ]	*		*	**!	***	
d. [ <i>sum</i> kazal <i>ti go</i> ]		*	*	**!	***	*
e. [ <i>sum ti</i> kazal <i>go</i> ]		*	*	*	***!	**

Note that all elements carry at least one feature, hence NONINITIAL(F) is violated by all candidates. The decision falls to EDGEMOST constraints. Candidate (c), for example, shows the same pattern of violations of the three highest-ranked constraints (given the equal ranking of EDGEMOST(PERF) and NONINITIAL(T)). But fronting of the participle entails one additional violation of EDGEMOST(DAT), compared to not fronting the participle (candidate a). Hence candidate (a) is optimal. Breaking the cluster of clitics, as in candidates (e) and (f) has a similar effect. It entails additional violations of EDGEMOST(DAT) or EDGEMOST(ACC), compared to the optimal candidate (a).

Finally, we turn to imperatives, which I have argued to be finite in M. In Legendre (1997), I discuss the fact that imperative verbs universally carry the illocutionary feature feature [imp]. In some languages, they may, in addition, carry [T]. As shown in T6, encliticization in imperatives results from the same kind of optimization as all previous M patterns.

## T6. Imperatives

	E(IMP)	NIN(T)	NIN(F)	E(DAT)	E(ACC)
☞ a. [ <sub>V</sub> daj <i>mu go</i> ] [T],[imp] [dat] [acc]		⊗	⊗	⊗	⊗⊗
b. [ <i>mu go daj</i> ]	**!		*		*

Note that M imperative verbs are domain-initial despite the fact that they are finite and violate NONINITIAL(T): candidate (a). The alternative is to have object proclitics causing worse violations of EDGEMOST(IMP). Hence, the relevant ranking is EDGEMOST(IMP) >> NONINITIAL(T). In other words, [imp] in T6 nullifies the V2 effect if EDGEMOST(IMP) >> NONINITIAL(T) >> NONINITIAL(F). This is similar, though not identical, to the effect of the feature [perf] in T5.

The reader should keep in mind that reranking of the two constraints, NONINITIAL(T) >> EDGEMOST(IMP), is observable cross-linguistically, including within Balkan (19b,c). As predicted, this yields procliticization in (finite) imperatives.

- |                              |                              |
|------------------------------|------------------------------|
| (19) a. Brazilian Portuguese | <b>Me</b> da!<br>'Give me'   |
| b. Tsakonian                 | <b>Mou</b> pe!<br>'Tell me'  |
| c. Albanian                  | <b>Më</b> thua!<br>'Tell me' |

#### 4. Conclusion

To sum up, I have argued here that the complex pattern of pro- vs. encliticization in M is a natural consequence of analyzing the universal clustering properties of clitics as deriving from an optimization of their morphological alignment requirements at PF.<sup>xi</sup> In M, a competition arises among functional features which all favor PF realization in P2. If [T] is present in the input, NONINITIAL(T) rules and [T] wins the competition, forcing its verbal host to appear in P2 under the pressure of EDGEMOST(F). In the absence of [T], however, NONINITIAL(F) rules and clitics cluster in P2. Deviations from the main pattern follow when additional features enter the picture, in particular when a single form carries two features, as is the case with the perfect auxiliary. No syntactic operation is involved because clitics are syntactically inactive.

#### Endnotes

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## References

- Anderson, S.R. 1992. *A-Morphous Morphology*. Cambridge University Press.
- Anderson, S.R. 1996. How to Put your Clitics in their Place. *The Linguistic Review* 13, 165-191.
- Borer, H. (1984). *Parametric Syntax: Case Studies in Semitic and Romance Languages*. Dordrecht: Foris.
- Embick, D. and R. Izvorski. (1994). On Long Head Movement in Bulgarian. In J. Fuller, H. Han, and D. Parkinson, eds. *ESCOL 94*. DMLL Publications, Cornell University, 104-115.
- Friedman, V.A. 1993. Macedonian, in B. Comrie and G.C. Corbett (eds), *The Slavonic Languages*. Routledge, 249-305.
- Groen, B.M. 1977. *A Structural Description of the Macedonian Dialect of Dihovo*. Lisse: The Peter de Ridder Press.
- Halpern, A. L. (1995). *On the Placement and Morphology of Clitics*. CSLI Publications.
- Joseph, B. 1983. *The Synchrony and Diachrony of the Balkan Infinitive*. Cambridge University Press.
- Klavans, J. (1985). The Independence of Syntax and Phonology in Cliticization. *Language* 61.1: 95-120.
- Legendre, G. 1997. Optimal Romanian Clitics: A Cross-linguistic Perspective. Johns Hopkins University Technical Report JHU-CogSci-97-9.
- Legendre, G. To appear. Morphological and Prosodic Alignment of Bulgarian Clitics. In J. Dekkers, F. van der Leeuw, and J. van de Weijer (eds.), *Optimality Theory: Syntax, Phonology, and Acquisition*. Oxford University Press.
- Legendre, G. 1998. Morphological and Prosodic Alignment at Work: the Case of South-Slavic Clitics. To appear in the *Proceedings of WCCFL 17*.
- Lunt, H. G. 1952. *A Grammar of the Macedonian Literary Language*. Skopje.
- McCarthy, J. and A. Prince. (1993a). *Prosodic Morphology I; Constraint Interaction and Satisfaction*. To appear, MIT Press.
- McCarthy, J. and A. Prince. (1993b). Generalized Alignment. *Yearbook of Morphology*, 79-153.
- Prince, A. and P. Smolensky. 1993. *Optimality Theory: Constraint Interaction in Generative Grammar*. Ms. Rutgers University and University of Colorado. To appear in MIT Press.
- Rivero, M.L. 1994. Clause Structure and V-Movement in the Languages of the Balkans. *NLLT* 12, 63-120.
- Suñer, M. 1988. The Role of Agreement in Clitic-Doubled Constructions. *NLLT* 6:3, 391-434.
- Tomić, O.M. 1996a. The Balkan Slavic Clausal Clitics. *NLLT* 14, 811-72.
- Tomić, O.M. 1996b. The Balkan Slavic Nominal Clitics. In A.L. Halpern and A.M. Zwicky (eds.) *Approaching Second, Second Position Clitics and Related Phenomena*, CSLI Publications.

Travis, L. 1984. *Parameters and Effects of Word Order Variation*. Ph.D. dissertation. MIT.

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i. The discussion is limited to three types of clausal clitics: auxiliaries, modals, and object pronouns. Severe space restrictions preclude discussion of the negative particle *ne*, the interrogative particle *li*, and the modal particle *da* -- though the distribution of *ne* is briefly commented upon in footnote 11. See Legendre (to appear) for an extensive discussion of B *li* and *ne* and Legendre (1998) for a comparative analysis of *li* and *ne* in B and M.

ii. Hence, finiteness is here understood to require both a temporal dimension (morphologically explicit or not) and person/number specification.

iii. Joseph (1983) also mentions the fact that in the potential mood, the first and second person auxiliary clitic 'be' may optionally be dropped in M -- in which case it conveys 'a mild volition or moral necessity'. My B informant reports that a third person auxiliary clitic, *bil*, can optionally be dropped in the B renarrated mood as well, despite the fact that the participle is (uncontroversially) non-finite: *toj kazal, će šte xodi na kino* '(he has) said that (he) will go to the movies'.

iv. Verb-second here means second linear position or (minimally) non-initial, depending on the number of clitics present in a given structure. It is not to be interpreted in the structural terms commonly associated with Germanic verb-second phenomena, i.e. V in C. Though my discussion here is limited to M, I believe that the analysis can straightforwardly be extended to the Germanic languages.

v. *Ti* in (8d) is the emphatic second person subject pronoun. It is homophonous with the dative second person object clitic in (8a,c).

vi. The pattern is more complicated with passive participles. The neutral order is as expected: (i) *Kade e stavana knjigata?* 'Where has the book been put?'. Under emphasis, however, the NP subject can intervene between the clitic auxiliary and the passive participle (Olga Tomić, p.c): (ii) *Kade e knjigata stavana* 'Where has the book actually been put?'.

vii. Standard OT conventions include the following: ☞ = optimal candidate; \* = individual violations of a given constraint; \*! = fatal violations; ⊗ = violations incurred by optimal candidates. Higher-ranked constraints are to the left, lower-ranked ones to the right. Finally, dotted separation lines between constraints signal that two adjacent constraints are equally ranked.

viii. In Legendre (1998; to appear), I provide empirical and theory-internal evidence that the relevant domain of EDGEMOST is V' while that of NONINITIAL is the Intonational Phrase. Because the discussion here is limited to simple null-subject sentences, the prosodic domain of NONINITIAL coincides with the syntactic domain

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of EDGEMOST.

ix. Prosodic Inversion moves a clitic (generated in the leftmost position in its syntactic domain) immediately to the right of its prosodic host at PF. The host is crucially assumed to be a prosodic word because Serbo-Croatian clitics may appear in second position after the first prosodic word. Morphological Merger is a similar operation but movement is to the right of a lexical head (rather than a prosodic word).

x. The alignment-based theory of clitics makes a number of predictions which are discussed at length elsewhere. Among them are predictions made by reranking the same constraints. If, contrary to the basic B ranking, EDGEMOST outranks NONINITIAL, clause-initial clitics obtain. This is, in fact, the basic pattern in Romanian (Legendre, 1997): (i) *I-am văzut* '(I) have seen him' were the accusative clitic *I* precedes the clitic auxiliary *am*. Also possible is a ranking whereby some EDGEMOST constraints outrank NONINITIAL which outranks other EDGEMOST constraints. The result is a non strict P2 language. This is in fact the true B pattern: the perfect auxiliary *săm* and object clitics are strictly P2, the future auxiliary clitic *ște* is not: (ii) *Ște săm pročel knigata* '(I) will read the book' (Legendre, to appear).

xi. Space considerations preclude further examination of deviations from the core M pattern of procliticization with finite verbal forms and encliticization with non-finite ones. The oral presentation of this paper in fact included an exhaustive discussion of the consequences of adding the negative particle *ne* to the patterns analyzed here. It was demonstrated that the occasional change from encliticization to procliticization - - *Dojden sum* '(I) have come' vs. *Ne sum dojden* '(I) haven't come'-- as well as the retention of encliticization in both imperatives and gerunds automatically follow from the analysis developed here (see Legendre 1998 for details).