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THE RISE AND FALL OF SECOND-POSITION CLITICS

ABSTRACT. Historical accounts of the phenomenon of cliticization have previously documented only the loss of second-position clitics. This paper argues that the history of Bulgarian offers evidence for the rise of a second-position clitic system. It is demonstrated that the second-position clitics of Old Bulgarian were not directly inherited from Indo-European, but emerged from a system of post-verbal clitics. The findings provide evidence against the position that independent historical laws govern 'natural' directions of language change. In particular, they challenge the belief in the uniform tendency for clitics to develop into inflectional affixes. Instead, the findings suggest that language change reflects competition between grammatical options, which instantiate principles and parameters of UG based on the properties of the learning algorithm and the nature of the linguistic input, and which are not intrinsically ranked. An analysis of the historical change that led to the development of second-position clitics in Old Bulgarian is proposed that implicates a switch in the parameter of headedness of TP. Clitics in both the old and new grammars are attracted by T^0. A change in the position of T^0 relative to its complement triggers the reanalysis of clitics from pronominals forming a complex head with V^0 to pronominals moving to the left edge of TP. The non-branching status of clitics makes them category-ambiguous (D^0/DP), which allows them to merge in the syntactic structure as either heads or maximal projections. The paper also traces the eventual loss of the second-position clitic system in Bulgarian and argues that changes in the grammar of phrasal movement, specifically the loss of topicalization to Spec,TP, trigger the syntactic reanalysis of clitics from arguments moved and adjoined to TP, into adjuncts to functional heads in the extended projection of V^0, resulting in the modern pre-verbal clitic system.

1. INTRODUCTION

A peculiar phenomenon of natural languages, clitics pose non-trivial questions for the interaction of syntax, morphology, and phonology, as they have special properties in all three modules which are challenging to integrate into an overall model of grammar. Added problems are raised by second-position cliticization – the placement of clitics after the first prosodic word, or the first syntactic constituent in a given domain, usually the

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clause. Such clitics seem to require not only special positioning in terms of structure but also reference to the number of linearly adjacent elements. Naturally, second-position cliticization has duly attracted much interest in linguistics, yielding proposals from a variety of theoretical perspectives based on a fairly diverse group of languages (e.g., Wackernagel 1892; Garrett 1990; Anderson 1993, 1997; Klavans 1995; Halpern 1995; Halpern and Zwicky 1996; Franks and King 2000; Roberts 2000; Bošković 2001, among many others). Although the issues surrounding second-position clitics are far from settled, significant progress has been made both in demarcating the empirical domain of relevant facts, and in specifying the grammatical mechanisms – phonological, morphological, and syntactic – that are involved. Relatively little is known, however, about historical change involving second-position clitics. There are a limited number of diachronic studies of languages with this type of clitics (Radanović-Kocić 1988; Rivero 1986; 1997; Wanner 1987; Taylor 1990; Fontana 1993; Benincà 1995; Pintzuk 1996; Hirschbühler and Labelle 2000). Further-more, the model of historical change emerging from such studies has been one-sided. While there are detailed quantitative studies of loss of second-position clitics, e.g., in the history of Ancient Greek (Taylor 1990) and Old Spanish (Fontana 1993), and explicit proposals have been made about the grammatical structures undergoing the change and their relative order, there have been no studies of the emergence of a second-position clitic system. Thus, whereas we have some understanding of the grammatical factors that bring about the disintegration of second-position cliticization, we do not know how this phenomenon comes into existence.

This paper fills in the missing part from the history of second-position cliticization. It documents the rise of a second-position clitic system in the domain of clausal pronominal clitics, and proposes an account for the change in the syntax of clitics that implicates a configurational switch in the headedness of T(ense)P, the functional projection licensing tense in-flection. The paper also traces the eventual loss of the second-position clitic system and argues that changes in the pattern of phrasal movement trigger the syntactic reanalysis of second-position clitics into verbal associates. It thus offers a full picture of the historical cycle involving pronominal clitics.

The empirical domain of investigation is pronominal clitic placement in the history of Bulgarian. The paper is based on a corpus study of his-torical texts from this language, ranging from the earliest written records from the 9th century to the 19th century. The discussion of Bulgarian in the context of second-position cliticization may be surprising, as previ-ous research on clitics in this language has focused almost exclusively

on the contemporary stage (cf. Avgustinova 1994; Dimitrova-Vulchanova 1995, 1998; Dimitrova-Vulchanova and Hellan 1999; Tomić 1996, 2000; Rivero 1997; Rudin 1997; Franks 1998; Franks and King 2000; Schick 2000; Bošković 2001, 2002, among others) and contemporary Bulgarian does not have second-position clausal clitics.[1] The few historical accounts (Sławski 1946, Gribble 1988) or traditional grammars (Duridanov et al. 1993; Ivanova-Mirčeva and Haralampiev 1999) do not treat Bulgarian as a second-position language either, as the historical records normally show a mixed pattern of clitic placement. This paper establishes that Bulgarian did have a stage where its clitic system was of the second-position type, and further, that this system was itself an innovation whose emergence could be traced in the historical records. The former claim, although novel, is less surprising. As a South Slavic language, Bulgarian is immediately related to Serbo-Croatian, a language which has been in the center of the debates on second-position clitics (e.g., Browne 1974; Percus 1993; Shütze 1994; Halpern 1995; Tomić 1996; Franks 1998, 2000; Legendre 1999; Franks and King 2000; Bošković 2000, 2001; Progovac 2000, among others). It is thus natural to suppose that Bulgarian had a shared grammar with Serbo-Croatian up to a certain time, and thus, had a historical stage characterizable by second-position cliticization. The second claim made here is much more unexpected, and of greater significance, if indeed true. Given that Indo-European is considered to have had second-position clitics (e.g., Wackernagel 1892), it appears to be generally assumed that the phenomenon of second-position cliticization in the modern Indo-European languages and in their more recent histories is directly inherited from the parent proto-language (e.g., Nevis and Joseph's 1992 discussion of reflexive clitics in Balto-Slavic).

In support of my proposal that, historically, Bulgarian developed and then lost second-position pronominal clitics, I report the results of a quantitative study of clitic placement in a corpus of historical texts (listed under Primary Sources at the end of the paper). I show that in the 9th–13th C period only two types of clitic placement were operative – post-verbal and second-position. Post-verbal clitics appeared after the main verb even when this verb was not initial in its clause, exhibiting a pattern #...X(P)–V–cl.... (where # indicates a clause boundary). Second-position clitics followed the first prosodic word in their clause and were separated by the verb, following the pattern #X(P)–cl–X(P)–...–V.... In the period of 9th–10th C the post-verbal clitics were dominant, but by the 13th C

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[1] A single account, that of Dimitrova-Vulchanova (1998), argues that contemporary Bulgarian clausal clitics are generated as second-position clitics, but then employs a syntactic lowering mechanism to derive the non-second position word orders.

they were overwhelmingly surpassed by the second-position clitics. The gradual change in the relative ratio of the two types of clitics is the basis for the claim that the language underwent a historical change characterizable as the emergence of a second-position clitic system. I further show that in the 17th C, second-position clitics are still the dominant type but by then a new pattern has emerged, that of pre-verbal clitics. These appear before the verb but may be separated by the beginning of the clause by more than one constituent, exhibiting the pattern #...X(P)–X(P)–cl–V.... By the 19th C this type of clitic placement gradually wins over the second-position type, and eventually becomes the norm in the present-day language.

In addition to the empirical findings about the history of Bulgarian clitics, I propose a syntactic analysis for each of the three types of clitics – post-verbal, second-position, and pre-verbal. I also suggest an account of the two grammatical changes – from post-verbal to second-position and from second-position to pre-verbal clitics – arguing that the observed changes in the syntax of the clitics are a reflex of independent changes in clausal syntax.

My proposals are framed within a model of the grammar in which syntax creates hierarchical sructures which are fed to a component responsible for their phonological realization at the level of Phonological Form (PF). Both syntax and the post-syntactic branch to PF play a role in the spell-out of pronominal clitics. Clitics are merged in argument or non-argument positions, depending on their syntactic features, and they may undergo movement in a constrained fashion. Crucially, syntax manipulates clitics according to its own general principles and the clitics' featural content, but without regard to the clitics' phonological properties. No syntactic movements are executed in a 'look-ahead' fashion to provide the clitic with a phonological host. If the syntactic computation has placed the clitic by Spell-Out in such a position that its prosodic needs for a host and any additional phonological requirements can be satisfied, no special readjustment is necessary in the post-syntactic component.

If, however, the structural position of the clitic is such that its phonological requirements cannot be met, a post-syntactic operation is responsible for the pronunciation of the clitic at a different position. No stance is taken here as to whether this post-syntactic operation is an instance of an actual reordering of the clitic with respect to an adjacent constituent (as in the analyses of Marantz 1988; Halpern 1995; Embick and Izvorski 1997; Embick and Noyer 2001, among others), or whether it is a matter of pronunciation of a lower copy of the clitic-chain (as in Franks 1998; Bošković 2001; Franks and Bošković 2001). Either of these approaches is compatible with the proposal developed here.

The suggested model of the historical changes in clitic placement utilizes the inherent ambiguity in the categorial status of clitics. Being non-branching, they are simultaneously minimal and maximal elements (e.g., Chomsky 1995). All three types of clitics have the same category, i.e., D^0/DP, but they differ in whether they are merged in head or XP positions. The D^0/DP duality allows for reanalysis of the clitic's syntactic position in the presence of independent developments in the syntax of the clause.

Specifically, I propose that post-verbal clitics in the history of Bulgarian were generated in argument positions within the vP. The clitics were attracted by T^0 and moved. Being category-ambiguous, they were able to left-adjoin as heads to T^0. Crucially, in Old Bulgarian T^0 was final in the TP. Assuming that (i) the main verb moved out of the vP but not as high as T^0; (ii) specifiers of functional projections between vP and T^0 were initial in their phrases (as were all specifiers); and (iii) adverbs were merged as specifiers of dedicated projections (Alexiadou 1997, Cinque 1999), the syntactic structure that was fed to PF had no elements intervening between the clitic and the main verb. Given this adjacency, and given that the clitic's phonological dependency was to the left, the clitic formed a prosodic word with the verb, surfacing as a verbal enclitic, without the need for any PF readjustment.

The emergence of the second-position clitic placement is argued here to have resulted from a change in phrase structure, whereby the head of TP became initial with respect to its complement. Clitics were still initially merged as arguments in the vP and then attracted by T^0, as their featural content and the featural content of T^0 remained the same. After the headedness switch, T^0 preceded rather than followed V^0, as a result of which the relative order of the clitic and the verb was reversed. Assuming that (i) the verb continued to raise to a functional projection lower than T^0; (ii) specifiers remained initial in their phrases, and (iii) adverbs continued to be merged as specifiers of functional projections, the single change in the headedness of TP resulted in the availability of XP positions between the landing site of the clitic and the verb. This created the opportunity for constituents to intervene between the verb and the clitic, providing positive evidence to learners that the verb was not the clitic's host. Such an analysis was reinforced by the fact that the clitic retained the leftward directionality of its phonological dependency, and surfaced as an enclitic to any constituent preceding it. Overt elements in Spec,TP, C^0 or Spec,CP could serve as hosts to the clitic. Given the non-adjacency of the clitic and the verb, and given the inherent category-ambiguity of clitics, word orders resulting from the adjunction of the clitic to the head-initial T^0 were reanalyzed as involving phrasal adjunction of the clitic to TP. Since Spec,CP

and C^0 could not be simultaneously filled, the TP-adjoined position of the clitic resulted in the fact that at most a cojunction and a complementizer or a conjunction and a phrase in Spec,CP could precede the clitic. Second-position cliticization obtained. If syntax provided no constituents in the CP-domain or conjunctions, which could, after linearization, provide phonological support to the clitic, a post-syntactic readjustment in the PF component was responsible for the pronunciation of the TP-initial clitic after the first prosodic word in the syntactic constituent in Spec,TP.

I further propose that pre-verbal clitics were (and continue to be) merged as adjuncts to functional heads within the extended projection of the verb. They check features with arguments of the verb, which may surface overtly as clitic-doubled DPs. The reanalysis of clitics from a second-position to a pre-verbal type correlates with decrease in the rate of phrasal movement to Spec,TP in favor of left-dislocation of phrases outside of the TP. This change in clausal syntax removes the opportunity for phrases to intervene between the clitic and the verb. With a sufficient number of input cases where the clitic is spelled out linearly adjacent to the verb, and presented with evidence for a grammar with restricted phrasal movement, learners (re-)analyze clitics from moved XPs to base-generated heads adjoined to functional heads in the extended projection of the verb. With this new posited grammar, the phenomenon of clitic-doubling becomes possible.

The empirical findings in this paper are of relevance for at least two major issues in historical syntax. First, the two changes in the syntax of clitics – from post-verbal to second-position, and from second-position to pre-verbal – are manifested gradually in the historical records, with clitic types overlapping temporally. From a generative perspective, however, distinct grammars, or more specifically, distinct settings of one or more parameters must be responsible for the different clitic types, and thus, a switch in parameter settings must be implicated in language change. To account for the simultaneous occurrence of old and new forms within the view of parametric variation, researchers in generative diachronic syntax have often adopted the grammar competition model (Kroch 1989, 1994; Lightfoot 1999; Yang 2000; among others). The model holds that at any given time during the course of a language change, two (or more) parameter settings, which are incompatible within a single grammar, are posited by language users. The linguistic expressions generated by the different parameter settings constitute a non-uniform linguistic environment, and thus further promote the co-existence of the posited grammars. The grammars compete and one gains an advantage over the other, as the more language users select a grammar, the greater its share in the subsequent

linguistic environment. I have adopted the grammar competition model in my account of the two changes in the syntax of clitics in the history of Bulgarian. To the extent that the diachronic components of the analyses proposed here are valid, this paper offers further support for the viability of the grammar competition model as a model of language change.

The second important issue for historical syntax raised by the findings in this paper concerns claims about the directionality of language change. Unidirectionality of change has been implicated as a universal, and it has been claimed that in language change, free lexical items tend to become grammaticalized but not the other way around. Thus, while grammaticalization has been said to be attested as a phenomenon, degrammaticalization has been claimed not to exist (cf. Lehmann 1995). In the domain of clitics, the grammaticalization view holds that clitics naturally change into inflectional affixes (Zwicky 1977). The clitics in Old Bulgarian, however, as reported here, changed from post-verbal to second-position, i.e., in a prior stage they formed a morphosyntactic unit with the verb, yet when they subsequently changed, they did not change into inflectional affixes, but instead became structurally independent of the verb. This fact supports the view, defended in Lightfoot (1999), that no independent laws of language change exist. Rather, language change is triggered by sufficient evidence that the linguistic environment cannot be parsed by a single grammar, and once initiated, the change is constrained solely by the grammatical options provided by UG.

2. Pronominal Clitics in Contemporary Bulgarian

Before we begin the discussion of the historical changes in the Bulgarian pronominal clitic system, an overview of the contemporary situation is in order. This section is meant as a brief, descriptive introduction only. Specific proposals about the syntax of clitics, the clitics in the contemporary language included, will be made in subsequent sections (see also Avgustinova 1994; Dimitrova-Vulchanova 1995, 1998; Dimitrova-Vulchanova and Hellan 1999; Tomić 1996, 2000; Rivero 1997; Rudin 1997; Franks 1998; Franks and King 2000; Schick 2000; Bošković 2001, 2002, among others, on pronominal clitics in contemporary Bulgarian.)

Contemporary Bulgarian has a typologically rare type of pronominal clitic placement, with clitics having partially divergent morpho-syntactic and phonological dependencies. The clitics need to be non-initial in their intonational phrase – a Tobler-Mussafia phonological dependency. Constituents of any syntactic category and prosodic weight, including elements without lexical stress, can provide such phonological support. In addition

to this phonological dependency, pronominal clitics are syntactically and prosodically proclitic with respect to a verbal host, i.e., they have to appear immediately to the left of a verb, the main verb or an auxiliary, and they typically form a prosodic word with this verbal host. In other words, while the clitics' morpho-syntactic and prosodic dependency is to the right, they have a further phonological dependency to their left. Such a system of divergent dependencies appears to be very rare. In her typological study of clitic systems in the languages of the world, Klavans (1995) cites only one example, the Australian language Ngancara, in which clitics have distinct syntactic and phonological hosts. Brazilian Portuguese is the other case of which I am aware, where pronominal clitics are pre-verbal associates, yet require phonological support to their left (Barbosa 1996).

   As an illustration of the syntactic dependency of the clitics, consider the sentences in (1):[2]

   (1)a.   ...če nie veče   *mu*   pomognaxme.
           *that we already him.*CL *helped*
           ...that we also helped him.

   b.   *...če nie veče pomognaxme *mu*.

   c.   *...če *mu* nie veče pomognaxme.

   c.   *...če nie *mu* veče pomognaxme.

   The immediately preverbal placement of clitics is shown in example (1a) in contrast with (1b). Separating the clitic from its verbal host, as in (1c, d) results in ungrammaticality. Patterns like these suggest that the clitic is syntactically associated with the verb, and not merely seeking phonological support from whatever constituent happens to be to its right. Further evidence that the clitic is indeed proclitic to the verb comes from verb-movement tests, though the facts are complicated by independent factors. Consider the question in (2) which illustrates a case of verb movement to C^0.

   (2)a.   Šte *mu*   pomogne li Radost s   tazi zadača?
           *will him.*CL *help.3sg   Q Radost with this task*
           Will Radost help him with this task?

   b.   *Šte pomogne li Radost *mu* s tazi zadača?

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[2] The facts are the same for pronominal and reflexive clitics alike, in both the accusative and dative case. I will not address here issues of the ordering of clitics within a clitic cluster.

The future particle *šte* (itself a proclitic) serves to provide the pronominal clitic with phonological support. The finite verb together with the pronominal clitic and the future marker moves to C^0, where the interrogative complementizer *li* (itself an enclitic) is.[3] The syntactic inseparability of the clitic from the verb and the verb-movement patterns suggest that the clitic forms a syntactic unit with the verb. Even in imperatives, which are typically analyzed as involving I^0-to-C^0 movement (e.g., Han 2001), the clitic appears pre-verbally, provided, of course that its phonological dependency is satisfied by the presence of some constituent which prevents the clitic from appearing clause-initially:

(3)a. Ti *mu* kaži.
    *you him.*CL *tell*
    You tell him.

   b. Ne *mu* kazvaj.
    NEG *him.*CL *tell*
    Don't tell him.

   c. Knigata *mu* daj.
    *the.book him.*CL *give*
    Give him the book.

The distribution of clitics in sentences with periphrastic tenses reveals that both the finite and the non-finite verb can in principle be the syntactic host of the clitic (unlike the situation in Spanish, Italian, and Modern Greek, for instance, where clitics obligatorily precede the tensed verb). The examples below show that the pluperfect and conditional auxiliaries can serve as hosts for the clitic (though less readily so, in the case of the conditional auxiliary). The present perfect auxiliaries are themselves clitics and so cannot be used as a diagnostic for the placement of object clitics.

(4)a. Nie sâšto *mu* bjaxme veče pomognali.
    *we also him.*CL *were already helped*
    We had already helped him too.

   b. Nie sâšto bjaxme veče *mu* pomognali.

   c. *Nie sâšto bjaxme *mu* veče pomognali.

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[3] On the syntax of *li*-questions and on the prosodic requirements of *li* see Izvorski, King and Rudin (1997), Rudin et al. (1999), among others. For the view that *li* is not a complementizer, see Bošković (2001).

(5)a.   ?Nie sâšto mu   bixme pomognali.
         we   also him.CL *would helped*
         We would also help him.

  b.   Nie sâšto bixme *mu* pomognali.

When clitics precede the auxiliary and are separated from the main verb,
they are not in second position. More than one constituent can separate
them from the left edge of the intonational phrase, as (4a) and (5a) show.
If the clitic does not precede the auxiliary, as in (4b) and (5b), its host is
the verb. When an adverb intervenes between the auxiliary and the main
verb, this adverb has to precede the clitic, as the contrast between (4b) and
(4c) shows.[4]

The leftward phonological dependency of clitics is illustrated in (6).
The prohibition against sentence-initial clitics is the same as the one known
in the Romance literature as the Tobler-Mussafia Law. Since Bulgarian is
a *pro*-drop language, the word order in (6a) is syntactically licit, but the
sentence is ungrammatical as the clitic appears first without phonological
support to its left. The sentence becomes acceptable if the verb appears
before the clitic, as in (6b), satisfying the clitic's leftward dependency:

(6)a.   **Mu*   pomognaxme.
         him.CL *helped*
         We helped him.

  b.   Pomognaxme *mu*.

The exact mechanisms for deriving the word order in (6b) are not im-
mediately relevant here in this section. The existing proposals about orders
such as (6b) in Bulgarian fall essentially into three types. Under the syntax-
only approach, verb-movement to C^0 is responsible for 'saving' a stranded

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[4] Adverbs can also intervene between the auxiliary and the main verb in (5). Thus (ia)
is acceptable, though the adverb would most naturally occur after the main verb:

(i)a.   Nie bixme s   *mu*   pomognali.
         we   would with him.CL *help*
         We would help him with pleasure.

  b.   *Nie bixme *mu* s udovolstvie pomognali.

Here too the clitic, which is not hosted by the auxiliary, cannot be separated from the main
verb.

enclitic (e.g., Rivero 1994; Tomič 1996, 2000, and others[5]). The second alternative implicates a post-syntactic reordering operation – Prosodic Inversion or another Morphological Merger type operation (as in Marantz 1988; Halpern 1995; Embick and Noyer 2001 Embick and Izvorski 1995; Izvorski et al. 1997; Rudin et al. 1999). The third approach is similar to the second in that it attributes the word-order differences in (6) to a post-syntactic component of the grammar; it differs from the second in that it does not invoke a reordering operation but employs filtering (Bošković 2000) or allows the pronunciation of a lower copy of the clitic (Franks 2000; Bošković 2001; Franks and Bošković 2001). An overview and discussion of the approaches to cliticization in South Slavic can be found in Bošković (2000, 2001).

I have, on purpose, not referred to the constituent providing phonological support to the clitic, as the clitic's phonological host. The received wisdom is that Bulgarian clausal pronominal clitics are phonological enclitics, i.e., that they form a prosodic word with the element to their left (e.g., Halpern 1995, p. 215; Dimitrova-Vulchanova and Hellan 1999; Dimitrova-Vulchanova 1998; Tomić 1996; Franks and King 2000, pp. 66, 237–238, 241; Bošković 2001, p. 4, 180–183).[6] However, despite the current beliefs, Bulgarian pronominal clitics form a prosodic word with their verbal host in the majority of cases. Even when a constituent with lexical stress precedes the clitic, as in the orders X(P)–cl–V, the clitic forms a prosodic word with the following verb, not with the X(P) preceding it. Correspondingly, constituents without lexical stress such as the conjunctions *i* 'and', *no* 'but', the complementizer *če* 'that' (used in example (1)),

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[5] Dimitrova-Vulchanova (1998) proposes that main verbs raise to adjoin to the clitic which heads its own projection or that the clitic lowers in the presence of auxiliaries.

[6] Rudin et al. (1999, pp. 565–566) discuss example (i) (their (46d)) and point out that its prosodic structure may be either (iia) or (iib). Capitalization indicates stress, and brackets indicate prosodic word domains.

(i)   ne TI li *se* STRUva, če
         not you Q refl seem   that
         Doesn't it seem to you that...

(ii)a.   [[ne TI]] li] [*se* STRUva]

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

Of relevance for us is whether the clitic *se* forms a prosodic word with the verb as in (iia) or not, as in (iib). Rudin et al. do not take a position on this issue. Here, the structure in (iia), with the clitic *se* being a phonological proclitic on the verb, is taken to be the correct one.

etc., are sufficient to satisfy the clitic's phonological dependency. All these elements, together with the clitic and the clitic's syntactic host, form one prosodic word. There are only two circumstances in which the pronominal clitic leans to the left. One case is when the verb is initial in its intonational phrase: the clitic follows the verb and forms a prosodic word with it. In this case, the syntactic host and the prosodic-word host are still the same. The second case is Neg–cl–V orders. The negative marker, although unstressed itself, triggers stress on the element following it, even when this element is a clitic. (See Izvorski et al. 1997; Rudin et al. 1999; Tomić 2001; Franks and King 2000; Bošković 2001, among others, on the stress properties of negation in Bulgarian). As a result of this stress pattern, negation and the clitic form a prosodic word separate from that of the verb.

In other words, Bulgarian pronominal clitics are not inherently specified as being phonologically enclitic. They can encliticize in certain environments (V–cl and Neg–cl–V orders) but in general they form a prosodic word with the auxiliary or main verb that follows them and serves as their syntactic host. The relevant factor behind the Tobler-Mussafia behavior is that the clitic cannot be initial in its intonational phrase.[7] Some additional discussion can be found in section 6.3.

Another relevant feature of the contemporary Bulgarian clitic system is the phenomenon of clitic doubling (cf. (7)). Full DPs can be doubled, with certain discourse effects which need not concern us here. It is of relevance to this paper that strong pronouns not doubled by a clitic are necessarily interpreted as contrastively focused.[8] No such interpretation is necessary (nor available) for clitic-doubled strong pronouns. (For discussion of clitic-doubling in contemporary Bulgarian see Tomić 1996; Rudin 1997; Dimitrova-Vulchanova 1998; Franks and King 2000; Schick 2000, among others.)

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[7] Bošković 2001, p. 218, fn. 37, notes the following example (reproduced here partially):

(i) Ot   njakolko   sedmici,   az,   19g.,   *si*   imam   projatelka,
     from   *several*   *weeks,*   *I,*   *19y(ears-old),*   *refl*   *have.1sg*   *girlfriend,*
     18g...
     18y(ears-old)...
     For a few weeks now, I, 19 years-old, have had a girlfriend, 18 years-old...

The clitic *si* appears after a pause, yet the sentence is acceptable, at least to some Bulgarian native speakers. As Bošković notes, this is not possible sentence-initially.

[8] Complements of prepositions are an exception, i.e., they necessarily are strong pronouns, since clitics are prohibited in this position.

(7)a.   Valja *go$_i$*   vidja nego$_i$

        *Valja him.*CL *saw   him*

        Valja saw him.

   b.   Nego$_i$ *go$_i$* vidja Valja.

This concludes the necessary introduction to the facts of the clitic system in contemporary Bulgarian. The next section describes the patterns of clitic placement found in the history of Bulgarian. Section 4 offers a syntactic analysis for each clitic type.

3. Clitic Placement in the History of Bulgarian

The history of Bulgarian can be divided into roughly three periods – Old Bulgarian (9th–11/12th C), Middle Bulgarian (13th–15/16th C), and Modern Bulgarian (17th C and after) (cf. Duridanov et al. 1993). There are different views in the literature regarding the exact status of Old Bulgarian relative to Old Church Slavonic. Old Church Slavonic is considered to be the common ancestor of the modern South Slavic languages. It is based on a fairly circumscribed corpus of early Slavic writings. It was first recorded during the second half of the 9th century, but the earliest documents have not survived. Approximately 17 manuscripts and 6 inscriptions dating from the 10th and 11th centuries have survived and they comprise the canon of Old Church Slavonic (cf. Schenker 1995: 189–190). These are early Slavic texts translated primarily from Greek, prepared in connection with the Byzantine mission to the newly christianized Slavic states.

The language of the documents in the canon of Old Church Slavonic has many eastern South Slavic features. Moreover, many of the texts were written and disseminated in the kingdom of Bulgaria. For these and other reasons, some scholars have preferred to use the term Old Bulgarian instead of Old Church Slavonic in reference to the collection of earliest Slavic writings (cf. Leskien 1922; Duridanov et al. 1993; see also the discussion in Schenker 1995; Lunt 2001). This is not the terminology adopted here. I follow the view that Old Church Slavonic was a common literary language equally representative of Old Bulgarian and of the other South Slavic dialects of the time (cf. de Bray 1980; Gribble 1988; Schenker 1995; Lunt 2001). There are manuscripts which are temporally coextensive with the written documents of Old Church Slavonic (i.e., dating from the 10th–11th C), but which show clear regional characteristics. These are not included in the cannon of Old Church Slavonic but are considered to be

representative of the various South Slavic dialects (e.g., Bulgarian, Macedonian, Serbo-Croatian, or Slovenian) and are conventionally referred to as Old Slavic of a particular provenience.

In other words, on the use of the term here, Old Bulgarian is neither the same as Old Church Slavonic, nor is entirely its successor, as the two are largely temporally overlapping. Rather, Old Bulgarian is considered to be the regional dialect of the supranational literary language of Old Church Slavonic. Several of the written documents included in the present corpus are from the 9th–11th century period, yet they are not part of the Old Church Slavonic canon. They are considered instead to be examples of Old South Slavic of Bulgarian provenience, i.e., of Old Bulgarian.

However, in the domain of clitic placement investigated here, Old Bulgarian is very similar to Old Church Slavonic, and to another regional variety of Old South Slavic such as Old Serbian.

Pronominal clitics in Old Church Slavonic are considered to have been phonological enclitics (de Bray 1980; Lunt 2001). Regarding their position, the only claim appears to be that clitics "stand after the first accented word of a clause" (Lunt 2001, p. 77). However, despite the received wisdom, the second-position type of clitic is not the only one attested. While examples of second-position clitic placement are not hard to find in Old Church Slavonic texts, neither are cases of unambiguously post-verbal clitics. The following examples illustrate these two types of clitic placement.[9] Note that verb-movement to C^0 in the question in (9) is not a likely reason for the observed word-order. In contemporary Bulgarian verb-movement to C^0 results in order cl–V and not V–cl.

(8)   ouže   *ti*   neprijaznъ ne oudobъjajetъ
        no.longer you.CL *disfavor   not rules*
        disfavor is no longer over you   (Old Church Slavonic 11th C, CS 8r.17.2)

(9)   do kolě   trъrpljǫ *vy*
        until how.much suffer   you.CL
        How long shall I suffer you? (Old Church Slavonic 11th C, CA 43r.b.5)

Examples such as (9) establish that Old Church Slavonic had post-verbal clitics, a finding that will need to be accommodated in the general view about the history of South Slavic clitics.

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[9] The source manuscript (listed under Primary Sources at the end of the paper) and the place in the text are given below each example.

Regional dialects of Old South Slavic other than Old Bulgarian also had post-verbal clitics. In Old Serbian "...the enclitic may occur both after the first emphatic substantive member or after the verb" (Dezső 1982, p. 322). The following examples illustrate the post-verbal clitic placement in Old Serbian:

(10)   ašte kto postiditъ   se   mene i   moixъ slovesъ
        *if   who feel.ashamed refl.*CL *me   and my   words*
        if someone feels ashamed of me and of my words
                                (Old Serbian 13th C, MS 17)

(11)   očiju mojeju liši   *me*
        *eyes my   deprive.3sg me.*CL
        deprived me of my eyes   (Old Serbian 14th C, MS 90)

We know that Indo-European was a second-position clitic language (Wackernagel 1892). However, Old Church Slavonic and Old Serbian had both second-position and post-verbal clitics, as the examples above illustrate. Given these facts, we will have to revise the simple picture that seems to be assumed for the historical developments in cliticization in Slavic. It cannot be the case that the Modern Serbo-Croatian second-position clitic system was simply inherited from Indo-European, without any change. It also cannot be the case that a single change – the loss of second-position clitics – happened on the branch to Modern Bulgarian. A post-verbal pattern must have existed in Old Bulgarian, as it is present in Old Church Slavonic and in the closely related Old Serbian. And indeed, this is what we find.

In Old Bulgarian, just as in Old Church Slavonic and in Old Serbian, the phonological dependency of pronominal clitics is to the left. This continues to be so throughout the subsequent history of the language until the 19th C (Sławski 1946, Gribble 1988, Duridanov et al. 1993). The syntactic dependency of pronominal clitics is less clear. It has been noted that clitics could appear in second position or immediately after the verb. Thus we find in Gribble (1988): "If the pronoun is not in second position, then it is almost always after the verb..." (p. 195). It is not clear from existing accounts whether these two types – second-position and post-verbal – exhausted the clitic placement possibilities in the history of Bulgarian, or whether there were yet other types of clitics.

It is also not known what the chronological relationship was between the clitic placement types. Were the second-position clitics in Old Bulgarian directly inherited from Indo-European, and thus, were the post-

verbal clitics an innovation competing with and replacing the second-position system? Or was it the case that such a change had actually already been completed prior to the period of record, and so the second-position clitics observed in the Old Bulgarian texts were actually a new development, replacing the post-verbal clitics?

As is clear, both options posit more than one change in the history of South Slavic clitics. Thus they accommodate the finding, presented in (9), (10) and (11) above, that Old South Slavic did not have a uniform system of second-position clitics. The options differ in how widespread they posit the post-verbal clitics to have been prior to the period of record and during the Old Bulgarian period. Finding out more about the longitudinal co-occurrence of the clitics types is thus necessary. On the basis of the established tendencies for the Old Bulgarian period, inferences about the situation prior to the period of record can then be made.

To address these questions, I studied the placement of pronominal clitics in a number of texts dating from the 9th to the 19th C (see Primary Sources). The domain of investigation was limited to pronominal clitics in finite clauses.

Clitic placement with the infinitive, the supine, and the gerunds tended to be post-verbal in Old and Middle Bulgarian. In Middle Bulgarian the infinitive began to be gradually replaced by the *da*-clause: a clause where the verb is inflected with agreement and tense morphology. *Da*-clauses were included in the present study.[10,11]

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[10] Examples like (i) and (ii) were found as late as Modern Bulgarian texts. Of course, these could be examples of clitic–climbing, the clitic being not part of the non-finite clause but of the matrix:

(i)	hoštjat	*vi*	dati.	
	*want.*3PL *you.*CL *give.*INF			
	They want to give you.			(18th C ms.760)

(ii)	možete	*se*	blagodari.	
	*can.*2PL *refl.*CL *give.*SHORT.INF			
	You may be thankful.			(19th C PS)

[11] The syntax of DP-internal clitics appears not to have changed in the history of Bulgarian. Historically, both possessive and ethical dative clitics exhibit second-position effects inside the DP. This is true for contemporary Bulgarian as well.

(i)	o	sъdroblennyich *mi*	plъtech	
	about torn		*my.*CL *flesh*	
	about my torn flesh			(15th C IN 23.1)

TABLE I

Clitic Pronouns in old and middle Bulgarian

	1sg	2sg	Anaphoric masc	Anaphoric fem	Anaphoric neut	1pl	2pl	refl
Accusative	mę	tę	i	jǫ	je	ny	vy	sę
Dative	mi	ti				ny	vy	si

Table I lists the clitic pronouns in Old (9th C–11/12th C) and Middle (13th–15/16th C) Bulgarian. The anaphoric clitic pronouns play the role of 3rd person pronouns. In identifying the clitics, I have been conservative and have considered only cases accepted by all authors.[12] Clitic pronouns are different in form from the corresponding non-clitic pronouns, facilitating identification. Also, as noted by Lunt (2001, p. 35), some clitics have a phonological effect on the final jers of their hosts; see (12).

(12)a. osǫdetъ   i   ~ osǫdety i
        *condemn.3pl him.*CL
        They will condemn him.

   b. prědamь   i   ~ prědami i
        *betray.1sg him.*CL
        I will betry him.

Table II lists the clitic pronouns of Modern Bulgarian (17th C and after).
    The corpus study revealed that historically, pronominal clitics were of three types. They could appear pre-verbally, as they do in contemporary Bulgarian, as early as the 17th C. As discussed in the Introduction, pre-verbal clitics can be several constituents removed from the beginning of

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(ii)   onezi *mi   ti   djakoni..*
        *those me.*CL *you.*CL *deacons*
        those deacons   (19th C PS 156)

No examples of ethical clitics with verbal hosts were found in the texts.

[12] Gribble (1988) also lists as clitics the 1st and 2nd dual nominative pronouns *vě* and *va*, the 1sg nominative pronoun *azъ* and the demonstrative pronouns *sъ* and *tъ*. These are not considered clitics in Słowski (1946), de Bray (1980), and Duridanov et al. (1993) and I have not included them in the present study.

TABLE II

Clitic pronouns in modern Bulgarian

	3sg.masc & neut	3sg.fem	3pl
Accusative	go	ja	gi
Dative	mu	i	im

the clause and have to immediately precede the verb. Patterns such as #
...X(P)–X(P)–cl–V, where at least two constituents appear clause–initially,
with no indication of an intonation break, are unambiguous instances of
pre-verbal clitic placement. The following example illustrates this pattern:

(13)   i   archangel Michailъ pak *sa*   javi   Agari.
        *and archangel Michael again refl.*CL *appeared Agara*
        And Archangel Michael appeared to Agara again.
                                              (18th C, SD 340.7)

Historically clitics could also be separated from the verb by interven-
ing constituents (as in (14)), and they could also appear after the verb
when the verb was not itself clause-initial (as in (15)). Example (14) il-
lustrates unambiguous second-position clitic placement and example (15)
illustrates clearly post-verbal clitics. Occasional examples of such word
orders are found as late as the 19th C but they are not grammatical in the
contemporary language.

(14)   kto *vy*   pismena stvorilъ jestъ
        *who you.*CL *letters   made   is*
        Who made the letters for you?   (9th C, AA 14.4)

(15)   vo svoę domy s   pochvaloju vъzvratiša *sę*
        *in refl homes with praise   returned.*3PL *refl.*CL
        They returned to their homes with praise.   (16th C, ČL 7)

No other clitic types were found in the historical manuscripts con-
sidered. Of course, many individual examples are ambiguous as to the
type of clitic involved. For instance, a word order such as #X(P)–cl–V can
represent a second-position or a pre-verbal clitic; similarly a #V–cl pattern
may be the surface realization of a second-position or post-verbal clitic
placement, or even of a pre-verbal one, with post-syntactic readjustment.

In addition to the differences in clitic placement, contemporary Bulgarian and its historical predecessors differ with respect to the distribution and interpretation of non-clitic object and reflexive pronouns. Historically, strong pronouns could be used without clitic doubling. In fact, in the texts until the 17th C considered here, direct and indirect objects were predominantly non-clitic pronouns. Recall that in contemporary Bulgarian, strong pronouns are obligatorily clitic-doubled, or they are interpreted as contrastively focused. The following examples from the 14th century illustrate the use of non-clitic pronouns in contexts where they cannot plausibly be interpreted as contrastively focused:

(16) Poslušaj *mene* opasno, i   skažǫ *tebě* po drobnu...
      listen   me   carefully and tell   you in detail
      Listen to me carefully and I will tell you in detail...
                                              (14th C, LP IV)

(17) Oni že,   vъprašaemi, xristĭny *sebe* ispovědovaachǫ.
      they EMPH *asked*   *Christians refl   professed*
      When asked, they called themselves Christians.
                                              (14th C, EN III)

The first examples of clitic doubling with full DPs found in the corpus are from the 17th C. As an illustration, consider (18) and (19):

(18) i   onia graždane napade *gi*   strah
      and those citizens   attached them.CL *fear*
      And fear overcame those people.   (17th C, TD 79.3)

(19) kaži *mu* na togoz   da mahne   toz topuz   ottam.
      tell him to that.one to put.away that metal.weight from.there
      Tell that one to put away that metal weight.   (19th C PS)

These are the basic facts of clitic placement to be investigated further and accounted for. Below I provide a syntactic analysis of the three clitic types.

4. THE GRAMMAR OF CLITICS

The three types of clitics found in the history of Bulgarian – second-position, post-verbal and pre-verbal – are special clitics in the sense of Zwicky (1977). That is, they not only lack lexical stress and thus are prosodically dependent on adjacent elements, but they are also found in syntactic positions different from those of corresponding strong pronouns and full DPs. Previous accounts of clitics in the contemporary South Slavic languages differ in the relative role they ascribe to syntax and the post-syntactic component in the placement of second-position and pre-verbal clitics. The 'phonology-only' approach (Radanović-Kocić 1988, 1996) claims that second-position clitics have unexceptional syntax compared with non-clitic DPs, and that they are moved in the phonological component to their surface position. The 'syntax-only' approach holds that syntax is solely responsible for the spell-out of clitics, i.e., that syntactic operations are employed in a 'look-ahead' fashion to save an enclitic which would otherwise be stranded in clause-initial position, or more accurately, the beginning of an intonational phrase. Proponents of this approach include Wilder and Ćavar (1994), Rivero (1994, 1997), Tomić (1996, 2000), Franks and Progovac (1994), Progovac (1996), Franks (1997, 1998), Dimitrova-Vulchanova (1995, 1998).

The 'syntax-only' approach to the placement of clitics is conceptually problematic. It requires syntax to execute operations which are not triggered by purely syntactic considerations such as, e.g., feature-valuation. This seriously undermines the modular approach to the syntax-phonology interface and is particularly incompatible with minimalist assumptions.[13]

Alternatives to the above approaches recognize that both syntax and the post-syntactic (PF) component play a role in the placement of clitics. One approach ascribes to the PF branch the power to reverse the order of a clitic stranded at the beginning of an intonational phrase and the first word or first constituent following it in the structure created by syntax. Such a reordering is an example of Morphological Merger (as in Marantz 1988), an independently needed operation that creates complex words from syntactically independent morphemes (e.g., English 'affix-hopping'). A family of operations of the Morphological Merger type, which apply at various stages of the PF derivation, have been implicated in the reordering

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[13] Empirical arguments against a purely syntactic approach to clitic placement in contemporary Slavic can be found in Embick and Izvorski 1997; Bošković 2000, 2001. For arguments against the purely phonological approach to clitic placement see Franks and King 2000; Bošković 2001.

of a clitic with its host (Marantz 1988, 1989; Percus 1993; Schütze 1994; Halpern 1995; Embick and Izvorski 1997; Izvorski et al. 1997; Rudin et al. 1999).

Another mixed approach attributes the ultimate spell-out of clitics to a post-syntactic component of the grammar without invoking a literal re-ordering operation at PF. A variant of this approach employs PF filtering (Bošković 2000): Syntax creates structures with clitics based on its own principles and without regard to the clitics' phonological requirements. Structures which result in the clitic having to be spelled out at the beginning of an intonational phrase cannot be pronounced and thus crash at PF. Another variant of this approach shares the assumption that syntax does not execute 'look-ahead' operations. It claims that clitics move in syntax and thus create non-trivial chains. In case syntax has not provided the clitic with the proper host, a lower copy of the clitic chain is pronounced (Franks 2000; Bošković 2001; Franks and Bošković 2001).

The analyses of the clitic types in the history of Bulgarian which I propose fall within the mixed syntax–PF approaches to cliticization. I do not make further commitment as to whether Morphological Merger type reordering operations are employed or whether lower copies of the clitic chains are pronounced in the ultimate spell-out of clitics, as the available historical data is compatible with both approaches. Some discussion of their relative merits is provided nevertheless.

4.1. *2P Clitics*

As we already saw (cf. example (14)), historically clitics could appear preceding the verb but separated from it by some constituent. The element intervening between the clitic and the verb can be an object, as in (14). It can also be the subject, as in (20), negation, as in (21), a VP-adverb, as in (22), or even an adverbial clause, as in (23).

(20) i   akože *sę* jazyci   razmesiša...
      *and as   refl.*CL *languages mixed*
      And as the languages were mixed   (9th C AA IX)

(21) i   veki *sa* ne   jave   prěd těhъ.
      *and ever refl.*CL NEG *appear before them*
      And he never again appeared before them. (18th C, SD 351.15)

(22) a   tïa *gy*   zlě   mǫčaše.
      *and she them.*CL *badly tortured*
      And she tortured them badly.   (17th C, TD 76.17)

(23) vedi mi, eҧpe, junošǫ onogo, iže *ti*   jako izvěstnu,
      *bring me bishop youth that   who you.*CL *as   known*

      věrova.
      *trusted.*3SG

      Bishop, bring me that youth, who trusted you, as you know.
                                                    (10th C, EJ 37b.5)

More than one element could separate the clitic and the verb, as seen in the following example where the clitic appears before both an adverb and negation:

(24) i   onzi momъkъ vidi kak go   vekje ne srъdi. . .
      *and that lad   saw how him.*CL *already* NEG *be.angry.at*

      And this young man saw that he is not angry at him anymore.
                                                    (17th C, TD 87.9)

All the above examples involve second-position clitics. The phonological host varies in category, as is to be expected. In (14), (23), and (24) a *wh*-pronoun (interrogative or relative) serves as the host for the second-position clitic; a complementizer plays the same role in (20); and the hosts in (21) and (22) are an adverb and a subject, respectively. A case of a likely direct object hosting a clitic is shown in (25) (though this example has an alternative analysis with demonstrative *sice* being an adverbial of manner):

(24) sice *mę* i   apl̄ъ nauči
      *this me.*CL *and apostle taught*

      The apostle taught me this/in this way.   (10th C, EJ 34b.11)

No examples of a conjunction without lexical stress hosting the clitic were found, i.e., no examples such as the constructed (22′) were attested.

(22′) a   *gy*   tïa zlě mǫčaše.
       *and them.*CL *she badly tortured*

In contemporary Serbo-Croatian such word orders are ungrammatical,[14] thus it appears likely that the absence of such examples with second-position clitics was not accidental. This underscores the point discussed below, that second-position clitics are necessarily enclitic, i.e., that they have to form a prosodic word with a host to their left. This is not

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[14] Some conjunctions may be accented and then are able to host clitics; see Hock 1996.

so for clitics in contemporary Bulgarian, which are not second-position, and which may not appear domain-initially but, since they do not have to form a prosodic word with the element to their left, they may appear after conjunctions.

The second-position clitics could split constituents (cf. (26) and (27)), i.e., the host could be defined in terms of first prosodic word (1W). (The preposition in (27) has no lexical stress itself.) Examples like these are crucial for distinguishing between accounts of second-position clitic placement.

(26)   i   mnogo *si*   zlo storiha meždu sebě.
         and much   *refl*.CL *evil did*   *between refl*
         And they did a lot of bad things to each other.

                                                     (17th C, TD 78.8)

(27)   i   na druga go   věra prědade.
         and to *another him*.CL *faith gave*
         And turned him over to another faith.   (17th C, KD 386)

The corpus data offered no examples of second-position placement after a branching phrase (1BP). We cannot, therefore, know whether placement after the first prosodic word (i.e., splitting of constituents) was obligatory. This is a very important concern, because it has implications for the relative role of syntax and post-syntactic components in the placement of second-position clitics. Suppose that placement after a branching constituent were possible, i.e., that hypothetical (26′) and (27′) existed alongside (26) and (27).

(26′)   i   mnogo zlo *si*   … X(P) … storiha meždu sebě.
          and much   *evil refl*.CL … *X(P)* … *did*   *between refl*
          constructed example

(27′)   i   na druga věra *go*   … X(P) … prědade.
          and to *another faith him*.CL … *X(P)* … *gave*
          constructed example

If examples like the constructed (26′) were grammatical (and only incidentally unattested), given that in the history of Bulgarian left-branch extraction was possible, it could be argued that syntax places either the DP *mnogo zlo* 'much evil', or just its left branch QP *mnogo* 'much' in a

specifier/adjunct position preceding the clitic. No further need for a PF re-adjusting operation arises. Indeed, such arguments have been presented for contemporary Serbo-Croatian, a language that has the patterns in both (26) and (26′), by Ćavar and Wilder (1994), Rivero (1994, 1997), Franks and Progovac (1994), Progovac (1996), Franks (1997, 1998), among others. These authors have argued that since all host–clitic orders *can* be derived by syntactic movement, they *should be*, and no post-syntactic mechanisms should be employed in the analysis of clitics.

Examples such as (27) present a complication for the syntax–only approach, although they still can be implemented through a sequence of syntactic operations. The crucial part is that the clitic's host *na druga* 'to another' is not a constituent. To derive the word order in (27) in the syntax would require several string-vacuous movements: first fronting of the PP *na druga věra* 'to another faith' to a position following the clitic, then movement of the NP out of both the DP and the PP, and then further fronting of the remnant PP to a position before the PP.[15] The technical implementation sketched above has been proposed in Franks and Progovac (1994). Further such implementations *can* be conceived of.[16]

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[15] The same issue, even more convincingly (because of the presence of the adjective) arises in Serbo-Croatian for examples like the following (due to Percus 1993, Schütze 1994; discussed also in Bošković 2000 in a counterproposal):

(i)a.   U ovu je   veliku sobu ušao.
       *in that he.*CL *big   room entered*
       He entered that big room.

  b.   *?U ovu Jovan ulazi   veliku sobu.
       in that Jovan enters big   room
       Jovan enteres in that big room.

  c.   ??U ovu Jovan veliku sobu ulazi.
       in that Jovan big   room enters
       Jovan enters in that big room.

[16] For instance, Borsley and Jaworska (1988) propose an analysis of Polish sentences as in (i) in terms of what they call 'restructuring' – merger of P and the D or A, and the creation of a complex determiner/adjective which is then left-branch extracted from the DP and PP.

(i)a.   Do którego Maria poszła kina?
       to   which   Maria went   cinema
       Which cinema did Maria go to?

The various sub-extractions and remnant movements may be motivated for phenomena independent of clitics, e.g., topic and focus licensing, and thus may be available as options in the syntax of some languages. However, the fact that such sequences of syntactic movements are independently attested in topic–focus articulation structures is not a sufficient argument for employing these to handle host–clitic orders. Recall that for the syntax-only approach, fronting of a constituent, whether branching or not, higher than the clitic, is a last resort operation, executed solely to save the clitic which has been stranded domain-initially.

The 'pronounce-a-copy' approach to clitic–placement (Franks 2000; Bošković 2001; Franks and Bošković 2001) is an intriguing account of second-position cliticization in Serbo-Croatian, under which syntax is responsible for the structural positioning of the clitic, with PF pronouncing lower copies of the clitic, when necessary, i.e., when the clitic is stranded domain-initially, to avoid a PF crash. Under this approach, (26) and (27), and the hypothetical (26′) and (27′) would be analyzed in the following way: If syntax places an XP or a P+XP higher than the clitic for independent reasons, the structure is pronounced as is. If however the clitic is placed by syntax higher than this XP or P+XP, at PF a lower copy of the clitic-chain will be pronounced. This account avoids the conceptual and most of the empirical problems of the purely-syntactic approach, while sharing with it the claim that the clitic's host is moved in syntax. However, one problem remains. The sub-extractions that need to be posited in the case of (26) and (27) are related to topic–focus articulation considerations. It needs to be shown that every time there is a 2P clitic, there is also an independent need to license a topic or focus XP that is a subconstituent of another XP. Until such a link is demonstrated, an account that handles the strict prosodic-word-second placement of second-position clitics through series of syntactic movements, whether or not it assumes further PF involvement such as pronunciation of a lower copy of the clitic chain, would not be entirely satisfactory.

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    b.   Na francuski poszli   film.
            to   French   went.3pl.masc film
            They went to see a French film.

Essentially the same account of such extractions in several contemporary Slavic languages is offered in Corver 1992. He proposes that the preposition cliticizes onto the head of the constituent following it and then P+XP undergoes the permitted left-branch extraction.

A further issue arises with the possible obligatoriness of patterns such as those in (26) and (27). Note that if clitic placement of second-position clitics was strictly after the first prosodic word, disallowing the hypothetical (26′) and (27′) (i.e., if the absence of such examples in the corpus was not an accident), then syntax cannot be completely responsible for the linear order of clitic and host. If the QP *mnogo* 'much' may be moved to a position preceding the clitic, so should the DP *mnogo zlo* 'much evil', similarly for *na druga* 'to another' and *na druga věra* 'to another faith'. In contemporary Serbo-Croatian both word orders are possible. Thus, whereas the 'syntax-only' and the 'pronounce-a-copy' approach would work for Serbo-Croatian, a strict 1W placement, which may have been the norm in the history of Bulgarian, cannot be easily accounted for. That is, it can be technically implemented but the question remains why the equally implementable placement after the branching phrase (1BP) is not grammatical. Note that there are languages with strict 1W placement, e.g., ancient Indo-European languages, Native American languages such as Alsea and Shuswap (Halpern 1995, p. 17). In such languages clitics may not appear after branching phrases. The existence of such languages makes it more plausible that the grammar of older Bulgarian could have been such that it disallowed branching constituents as hosts for the clitic.[17]

As argued by Halpern (1995), strict word-second orders, i.e., orders where the clitic necessarily splits constituents, are straightforwardly analyzed in an approach that assumes the availability of post-syntactic re-ordering operations. If the clitic is placed by syntax in a clause-peripheral position, in the absence of a prosodic word to its left, it will undergo Prosodic Inversion with the prosodic word immediately to its right. Prosodic Inversion is a strictly local, PF operation which applies after linearization of syntactic structure and after the building of prosodic domains, and is defined as follows:[18]

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[17] A strict 1W clitic placement is found in contemporary Serbo-Croatian as well, in the case of the question/focus complementizer *li*. See Bošković (2001, pp. 26–36) for a recent analysis, which cannot be adopted here, as the *li*-cases are crucially different in that they involve focus-licensing. While it may be plausible to posit that focused elements are attracted by *li* and head-adjoined to it to check a focus feature, a similar proposal appears unmotivated for the single-word hosts of pronominal clitics.

[18] The formulation departs, in non-essential ways, from Halpern's definition. Also, for simplicity, I have not included here the mirror image clitic placement at the right edge of a prosodic domain.

(28) PROSODIC INVERSION

In a configuration [=*CL* ω] where a prosodically defficient, leftward-dependent clitic =*CL* is initial in its domain, and is immediately adjacent to a prosodic word ω to its right, reorder =*CL* and ω and attach =*CL* to the left of ω, to form a prosodic word [ω=*CL*].

As discussed in Embick and Noyer (2001), Prosodic Inversion is one of a family of PF operations that locally reverse the order of clitic and an adjacent element.[19] In a general form, these PF operations instantiate non-syntactic Merger. Following Marantz (1988), Morphological Merger, the affixation of a head X to a head Y in a local configuration, can apply after syntax and can reverse the linear order of X and Y. Clearly, Morphological Merger is an independently necessary operation. It is involved, among other things, in the spell-out of English finite main verbs, which do not move to T^0, but which, nevertheless, realize tense as a morphological suffix.[20] The same logic, as in affixation, applies in the case of cliticization. In the post-syntactic component, proclitics can undergo Merger without reordering, similarly to inflectional prefixes, whereas enclitics need to be reordered with their host, similarly to inflectional suffixes.

An approach that assumes post-syntactic reordering not only can capture a strict 1W placement, but also has the immediate advantage of accounting for the fact that second-position clitics cross-linguistically are always enclitic.[21] In the 'syntax-only' approach, we should expect to have

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[19] Other post-syntactic reordering operations, according to Embick and Noyer, are Lowering, which applies before vocabulary insertion, and Local Dislocation, which applies after vocabulary insertion and linearization (assuming a Late Insertion approach to the morphology–syntax interface). I do not discuss these in more detail, as Prosodic Inversion is sufficient to illustrate the PF reordering approach, and Prosodic Inversion has been widely discussed in the literature on Slavic clitics.

[20] This works on the assumption that verbs are not fully inflected in the lexicon.

[21] Bošković (2001) is also able to capture this generalization. Following some ideas of Klavans (1995), he proposes that 2P clitics in Serbo-Croatian have the following requirements (his example (152) p. 83):

(i) a. #__

    b. suffix

It is a lexical properties of clitics that they must be suffixes and right-adjacent to an intonational phrase boundary. He further assumes that after the clitic merges with its prosodic host, satisfying the (ib) requirement, the new complex word inherits the (ia) requirement of its clitic part. The PF reordering approach, in contrast, does not have to assume that (ia) is a lexical property of clitics; deriving the distribution of clitics from their high position in the syntax, a requirement similar to (ib), and the availability of reordering merger.

a case of a second-position *pro*clitic, i.e., a clitic which has the same requirements with respect to order in its domain (second in the intonational phrase), but which is prosodically dependent on a constituent to its *right*.[22] The Morphological Merger approach, of course, readily predicts that this should be the case. The clitic attaches to an adjacent prosodic word through a post-syntactic Merger, and *only if* it is an *en*clitic will it reverse its order with the host, i.e., undergo Prosodic Inversion.[23]

The PF reordering approach, however, faces some problems of its own. As discussed in Wilder and Ćavar (1994), Progovac (1996), Bošković (2001), syntactically immobile elements cannot serve as hosts for second-position clitics in contemporary Serbo-Croatian. For instance, even prepositions that have lexical stress cannot be clitic hosts.[24] More examples of other environments where the clitic cannot split constituents in Serbo-Croatian are found in Halpern (1995, pp. 73–76), Bošković (2001, pp. 13–19). To list a few, these include nouns followed by post-head modifiers or genitive phrases, coordinate structures, most proper names. Interestingly, as Halpern (1995, p. 73) notes, all of these examples were acceptable in literary Serbo-Croatian in the not too distant past. Thus, most likely, contemporary Serbo-Croatian is changing such that the grammar allowing for optionality in the splitting of branching phrases is being replaced by a grammar wich prohibits splitting of constituents, with the change most pronounced in these environments.

It is not my goal here to defend the PF reordering approach over its alternatives of the mixed syntax–PF variety. Therefore, having addressed the relative merits of the various mixed approaches and their limitations, I will not take a strong position on their applicability across Slavic. Histor-

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[22] Note that a similar dissociation of domain-position and prosodic-word attachment is observed in contemporary Bulgarian, as I argued before. Clitics in this language cannot be domain-initial but they procliticize to a verb on their right.

[23] Optimaility-theoretic approaches to second-position cliticization such as Anderson (1997), Legendre (1999) are also able to answer the 'why second' question, and to capture the generalization that second-position clitics are enclitic, in a natural way, within an otherwise very different conception of grammar.

[24] Consider, for instance, (i), from Bošković 2001, p. 14.

    (i)a.   *Prema su Mileni   Milan i   Jovan ušli.
             toward are Milena.dat Milan and Jovan walked
             Toward Milena, Milan and Jovan walked.

      b.   Prema Mileni su Milan i Jovan ušli.

The clitic in the above sentences is an auxiliary but the same facts obtain with pronominal clitics.

ical Bulgarian, as represented in the texts from the present corpus, does not provide us with the means of distinguishing among the competing views.

To reiterate, the theoretical issues surrounding the hypothetical (26′) and (27′) are clear. Such examples, in addition to (26) and (27), are crucial for distinguishing between the mixed approaches to clitic placement which argue that both syntax and the post-syntactic component are involved in the spell-out of clitics. Unfortunately, we cannot test the grammaticality of such examples. Therefore, I do not argue that PF reordering is necessarily involved in the spell-out of second-position clitics in the history of Bulgarian. Instead, I propose an account that is compatible with all versions of the mixed syntax–PF approach, including the pronunciation of a lower copy of the clitic. Crucially, second-position clitics are taken to be pronominals that are placed by syntax in a clause-peripheral position without regard to their phonological requirements.

I propose that pronominal second-position clitics are merged in the syntactic structure as arguments to V^0, and that they subsequently move from the position of their initial merge. This proposal is in the spirit of Kayne (1991) in that it posits the spell-out position of the clitics to be a derived position. It also differs from the approaches of Jaeggli (1986), Borer (1986), and Sportiche (1996), who take clitics to be heads adjoined to V^0, or heads of functional projections. Notably, none of the classical analyses were developed for second-position clitics. It is particularly important that second-position clitics should not be treated as unambiguous heads in their base position. If clitics were unambiguous heads in the position of initial merge, the impossibility of clitic doubling would need an independent explanation. Indeed, capturing the availability of clitic-doubling was a major concern in the accounts of Jaeggli, Borer, and Sportiche. Regardless of the specifics of their proposals, all of them have the following property: since pronominal clitics are generated in non-argument positions, they must form chains with arguments inside the vP. These arguments may appear overtly, resulting in clitic-doubling. Positing an analysis that treats second-position clitics as base-generated as the head of a functional projection or adjoined to V^0 would miss an important generalization: languages with second-position pronominal clitics do not allow clitic-doubling (to the best of my knowledge). If we treat second-position clitics as unambiguous heads before movement, we would have no way of accounting for the absence of clitic-doubling. On the other hand, if clitics start out in argument position, the absence of clitic-doubling is to be expected.[25]

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[25] Of course, this works on the assumption that the doubled DP *is* in argument position, and is not an adjunct. Aoun (1999) shows that clitic-doubling in Lebanese Arabic is best

I further propose that second-position effects are partly derived by the fact that the clitics move to a clause–peripheral position, following Marantz (1988, 1989) and Halpern (1995).[26] The clause-peripheral position into which the second-position clitics of Bulgarian are re-merged is proposed to be an adjunction/additional specifier of TP. This movement is triggered by the need for the pronominal clitic to check some feature in T^0.[27]

Importantly, after movement, pronominal second-position clitics are re-merged as XPs, not as heads. This account follows Halpern (1995) and is similar to Fontana's (1993), but is unlike most accounts of second-position cliticization in the modern Slavic languages, which take second-position clitics to be heads of functional projections, in the spirit of Sportiche (1996) (e.g., Schütze 1994; Wilder and Ćavar 1994; Progovac 1996, 2000; Tomić 1996; Franks 1998, among others). The (inner) Spec,TP is the position of potential hosts for the second-position clitics in the absence of material in C^0 or Spec,CP. In the structure created as the output of syntax, the clitic precedes its host. It is spelled out, however, as an enclitic, in accordance with its phonological properties. This PF readjustment may be taken to be an actual reordering, or a pronunciation of a lower copy of the clitic-chain, presumably in the vP-external case-position for the clitic. This account, in addition to capturing the available data, also allows for a natural explanation of the transitions from post-verbal to second-position clitics, and from second-position to pre-verbal clitics, as we will see.

The re-merge as an XP rather than a head warrants some discussion. I assume that the main verb did not raise as high as T^0. There are no conclusive arguments in favor of verb-movement to T^0 in contemporary Bulgarian. The finite verb can appear either before or after the relevant adverbials; the proclitic status of negation makes it unsuitable as a verb-movement diagnostic, and floating quantifiers of course only provide evidence that

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explained if the overt DP is in an adjunct position. Yet, he also argues that the clitics in this language are heads associated with a null pronominal in argument position.

[26] This account of the syntax of 2P clitics differs from the one proposed for modern Serbo-Croatian by Bošković (2001), for whom clitics remain fairly low in the structure.

[27] I will remain non-committal as to the exact featural content. While, obviously, understanding *why* the movement of clitics happens is desirable, we will have to be satisfied with an account of *how* it happens, and in what precise ways the various types of clitics differ from each other. Note that in this respect my account is not less explanatory than others. No existing analysis of clitic movement offers an explanation of why this movement is necessary or possible. Empirically, clitics are obligatorily attracted to finite T^0 in Italian, Spanish, Modern Greek, and optionally in contemporary Bulgarian. Word orders such as #X(P)–cl–Aux–V and #X(P)–Aux–cl–V are both possible in contemporary Bulgarian, as illustrated earlier in examples (4) and (5). Note that the auxiliary in these sentences is not a clitic, so that issues of clitic ordering in a clitic cluster do not arise.

the verb may be moved out of the vP, and not that it must move as high as T^0. Given that word order in Old and Middle Bulgarian was even more flexible than it is in the contemporary language, it is even harder to come up with clear evidence on this issue.[28]

If the main verb remained lower than T^0, adverbs in that field (see Cinque 1999) would intervene between the landing site of the clitic and the verb, even if the clitic were to adjoin to T^0 as a head. The XP interveners between the verb and the clitic provided positive evidence to learners that the verb was not the clitic's syntactic host. Such an analysis was reinforced by the fact that the clitic retained the leftward directionality of its phonological dependency, and surfaced as an enclitic to any constituent preceding it. Constituents in Spec,TP, C^0 or Spec,CP, could serve as hosts to the clitic. I propose that given the non-adjacency of the clitic and the verb, and given the inherent category-ambiguity of clitics, word orders resulting from the attraction of the clitic by the head-initial T^0 were analyzed as involving phrasal adjunction of the clitic to TP.

(29) represents the syntactic position of the clitic prior to the satisfaction of its phonological dependency:

(29) $[_{TP}$ CL$_i$ $[_{TP}$ ... $[_{vP}$ ... t$_i$ ... $]]]$

At PF, the clitic, being a phonological enclitic, needs a prosodic word to its left. Syntax may incidentally provide such a host in the form of an element from the CP projection or a conjunction. If that is not the case, and the clitic is TP-initial at Spell Out, a PF readjustment operation (a reordering merger or pronunciation of a lower copy) is responsible for the clitic finding its phonological host in the element in Spec,TP.

It is expected under the proposal in (29) that in the presence of a complementizer, a *wh*-word, or a conjunction, the clitic could remain the first element of the TP since it has an available phonological host. This is indeed what is observed in the following sentences (as well as in (20), (23), and (24) above):

(30)   i kïnopsь viдě čje *sъ*   vekje ne   vrьnъ onzi běsь.
         *i Kinops saw that refl.*CL *ever*   NEG *return that evil.spirit*
         And Kinops saw that the evil spirit did not come back any more.
                                                         (17th C TD 82.6)

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[28] Movement of the main verb to C^0 is, of course, a separate matter.

(31)   počto *mi*   trudy   daeši?
       *why   me.*CL *hardship give*
       Why are you giving me hardship?'   (10th C EJ 38a.13)

(32)   ili *go*   ne   znaete.
       *or him.*CL *neg know.*2PL
       Or you don't know him.   (17th C, TD 370.5)

It is also predicted that a clitic should never precede a complementizer or a *wh*-word. Even in cases where the element in C^0 or Spec,CP is itself following a conjunction, the clitic still follows the element in C^0 or Spec,CP, as consistent with the proposal in (29). The following examples, as well as example (20), illustrate this point.[29]

(33)   ti   imьže *sę*   kъ моždьньмъ ne   imatъ broda
       *and which refl.*CL *to   hemispheres* NEG *have   passage*
       There is no passage leading from it [the ear] to the hemispheres
       of the brain.   (10th C, HB)

(34)   no ot što *se*   ti   nerazumne   sramiš   ot
       *but from what refl.*CL *you.*2SC *unwise.*VOC.SG *be.ashamed from*
       svoj rod
       refl community
       But why are you, unwise person, ashamed of your community?
                                                  (18th C, SH)

The second-position account is not yet complete. If XPs other than the clitic could freely adjoin to TP, a situation could arise where the clitic is separated from the edge of the clause by more than one constituent. Such non-2P orders could be prevented from occurring by making the following two assumptions. First, there are no TP-adjoined adverbs; rather, adverbs are specifiers of dedicated functional projections (as in the accounts of Alexiadou 1997 and Cinque 1999). Second, T^0 has a feature triggering topicalization of an XP to its specifier (a feature different than the one attracting clitics), and once a topic XP has been moved and the topicalization feature been checked, no further topicalizations to the T-domain can be initiated.[30] For further discussion of the role of topicalization in clitic

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[29] The infinitive form of the verb is *iměti se*, 'have/take + reflexive' (cf. Old Russian *imatisja*, see Sreznevskij (1958), Vol. I, p. 1092), with the meaning of an existential.

[30] Interesting questions arise concerning the source of the uniqueness requirement on XP-fronting to Spec,TP. Parallels with the V2 phenomenon in Germanic immediately

placement see section 6.2., where the loss of the property of T^0 responsible for the fact that only a single XP can be merged as a specifier/adjunct to TP will be implicated in the loss of 2P clitics and the development of a system with pre-verbal clitics.

It is nevertheless the case that some clitic-third orders can be found in 2P languages. As is known, in other languages with Wackernagel-type clitics, conjunctions, complementizers and *wh*-words do not always count for determining the second position (Taylor 1990 for Ancient Greek, Fontana 1993 for Old Spanish, Franks and King 2000 for Serbo-Croatian, among others). Indeed a small number of cases like this were found in the corpus, some of them are illustrated below:

(35)   …<u>če</u> prorok se   ot ženъ upla<u>si</u>.
         …*that prophet refl.*CL *from woman frightened*

         that the prophet was scared by the woman   (17th C, KD 387)

(36)   …raboty, deto ne   sa istina, <u>kakvoto</u> v mnogo knygi *sa*

         things   that NEG *are truth what   in many   books refl.*CL

         rěči   hulny   i   l'žliivi nahodętъ

         words insulting and lying   appear

         things that are not true, what in many books are words insulting
         and deceiving   (18th C, SD 606.6)

For modern Serbo-Croatian, it has been proposed that 2P clitics are sensitive to the intonational phrasing (Radanović-Kocić 1988; Bošković 2001). Thus, it has been argued that clitic-third orders are an instance of 2P placement where the first constituent in the clause (e.g., a complementizer, or a *wh*-element) is left outside the intonational phrase including the clitic. While no claims can be made about intonational phrasing in the historical texts, an approach along these lines will work for examples like (35) and (36). At PF, the element in the CP projection will be invisible during the linearization of the clitic, i.e. the clitic will be initial in its intonational phrase. The mechanism of PF-readjustment will then apply (whether a reordering merge, or a pronunciation of a lower copy of the clitic) and will derive a surface clitic-third order.

Examples like (35) and (36) also argue against an approach to second-position clitics as heads adjoined to C^0 (cf. Progovac 1996, 2000; Wilder

suggest themselves. Furthermore, as Marcel den Dikken (personal communication) points out, the uniqueness requirement on Spec,TP contrasts with the necessity of multiple *wh*-movement to Spec,CP which extends back to Old Slavic. The featural specification on individual heads can be made responsible for these facts but the deeper issue of what heads can have the relevant properties and why remains.

and Ćavar 1994; Tomić 1996, for Serbo-Croatian clitics, and others). Indeed, in these sentences we see a subject and a VP–adverbial, respectively, separating the clitic from the element in C^0 or Spec,CP.

The analysis developed above predicts that branching phrases in Spec,CP should be able to precede the clitic, but no examples of the relevant kind were found in the texts. This absence may be accidental, or it may not be. If the latter, the TP-adjunction analysis would not be suitable, and an even higher attachment of the clitic would be needed.

4.2. *Pre-Verbal Clitics*

Another type of clitic placement found diachronically is an immediately preverbal one, i.e. the contemporary Bulgarian type of placement. Clitics follow fronted *v*P-material and/or negation in the presence of some clause-initial X(P).

(37) i   Іоаnь mnogo *gy*   pouči.
      *and Ioan a.lot   them.*CL *instructed*
      And Ioan taught them a lot.   (17th C, TD 85.15)

(38) zaštoto ne *se*   tъrpjat ot nikoe pravitelstvo.
      because NEG *refl.*CL *tolerate by no   government*
      Because no government tolerates them.   (19th C, PS 191)

It is clear that examples like (37) and (38) do not involve second-position clitics. Second-position clitics would precede the VP–adverbial and negation, as in (22) and (21), respectively. Deciding on the exact syntactic status of these clitics, however, is not a very easy task. One option can be easily ruled out: base-generation of the clitic in argument position followed by obligatory incorporation into the verb, i.e., the structure in (39):

(39) $[_{VP} [_{V'} [_{V^0} \text{CL}_i \text{ V}^0] \text{ t}_i]]$

As discussed earlier, such an analysis of clitics in languages that allow clitic doubling is problematic. If the clitic starts out as a pronominal in argument position, the doubled object cannot be an argument as well. Since in both contemporary Bulgarian and earlier in the Modern period (17th–19th C) where pre-verbal clitics are found, clitic doubling is available, we can conclude that (39) does not represent the syntactic position of the pre-verbal type of clitics. These considerations also rule out an account of clitics in terms of XPs moved from argument positions and adjoined to

some maximal projection. Two other options remain. One is the classical account proposed by Borer (1986) and Jaeggli (1986) for the pre-verbal clitics of Romance. Under this proposal, the clitic is base-generated as adjoined to V^0 and is co-indexed with a null pronominal in argument position. The structure is illustrated in (40):

(40) $[_{VP} [_{V'} [_{V^0} CL_i V^0] pro_i]]$

This account avoids the problems that clitic doubling posed for the analysis in (39). The clitic-doubled DP can surface in the position of the null pronominal.

   The other possible syntactic account of pre-verbal clitics is that they are base-generated as adjuncts to the heads of dedicated functional projections, in essence, a modification of the analyses by Borer (1986), Jaeggli (1986), and Sportiche (1996). This projection has to be lower than T^0, because of examples like the following, where the clitic follows the finite verb in the clause:

(41)   . . . narodь, što běha *se*   sъbrale   pri nego.
         *people   who were refl.*CL *gathered at him*
         people who had come to him   (17th C TD 82.14)

This second syntactic analysis is illustrated in (42).

(42) $[_{TP} ...T^0...[_{XP} [_{X^0} CL X^0] ... [_{vP} V^0]]]$

The two types of accounts are very similar in spirit. With newer aproaches to argument structure that separate the lexical root from the category-determining projection *vP*, the clitic will need to be merged in the functional domain. Hence, the view adopted here is that of (42). Pre-verbal pronominal clitics are adjuncts to heads of functional projections attracting VP-arguments to their specifiers at LF. This account differs from that advocated for contemporary Bulgarian by Rudin (1997) among others, who take clitics to be the heads of AgrOPs. The non-branching nature of clitics dictates that they should not be heads of functional projections in the clause, as these clearly take complements and specifiers. Rather, the clitics are argued here to be adjuncts to the functional heads, keeping their non-branching status.

   It is less clear whether in the absence of movement to C^0, V^0 raises in the overt syntax as high as the functional projection to which clitics are adjoined, or whether the attachment of the clitic to the verb is instantiated in the morphology component on the PF branch (see discussion above on

the lack of conclusive evidence for V-to-T movement in Bulgarian). In any event, whether this is done in the syntax through head-movement or in morphology through Merger, I propose that a complex head of clitic and verb is formed prior to linearization, and that this is what accounts for the fact that the clitic forms a prosodic word with the verb, and not with some other constituent, e.g., material appearing immediately to its left. Thus, pre-verbal clitics in the modern period are not directional in their prosodic deficiency. They can form a prosodic word with the verb whether the verb follows them or precedes them clause-initially.

These clitics still need, however, not to be initial in the intonational phrase. If at Spell-Out a pre-verbal clitic found itself initial in the intonational phrase, PF readjustment would be necessary. As discussed above, I remain theory-neutral here with respect to the exact nature of the PF readjustment – a reordering Merger or pronunciation of a lower copy of the clitic-chain.[31]

4.3. *Post-Verbal Clitics*

The third type of clitic placement found in Old and Middle Bulgarian involves a clitic which follows the verb in cases where a preverbal element is available to serve as a host. Consider the following example, as well as (15):[32]

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[31] In case the former approach turns out to be more suitable, Prosodic Inversion itself cannot be responsible, at least in the case of contemporary Bulgarian, as the pre-verbal clitics are not prosodically directional, i.e., they do not need to form a prosodic word with a constituent to their left. Because of this, another type of Merger, named *Local Dislocation* in Embick and Noyer (2001), would be appropriate to locally rearrange the clitic and its syntactic host, the verb. Local Dislocation applies after linearization, which is relevant here because phonological information needs to be available before the clitic can be 'stranded' without phonological support domain-initially. As it applies after linearization, Local Dislocation is sensitive to linear adjacency only, which in this case trivially applies, as the clitic and the verb form a complex head prior to linearization.

[32] A reviewer points out that post-verbal clitics, as in the examples in (15) and (43), could in principle still be analyzed as second-position clitics, provided there is a pause before the verb. As discussed in Radanović-Kocić (1988) and Bošković (2001), 2P clitics in modern Serbo-Croatian are sensitive to intonational phrase boundaries, sometimes resulting in surface word orders where the clitic is more than one constituent removed from the left edge of the clause. Given that we are dealing here with historical texts, claims about intonational phrasing cannot be made with certainty. Note, however, that an analysis of post-verbal clitics as 2P clitics after a mid-clause pause is not likely for many of the examples, e.g., (9), (10), (43), etc. Moreover, importantly, there are no examples in the texts where a clitic would be more than two constituents removed from the left edge of the clause yet be separated from the verb, i.e., no examples like the hypothetical (i), corresponding to (43), were found:

(43)   doideže oime c̄hvo   na zemli slavit   *se*
        *until   name Christ's on earth honors refl.*CL
        As long as Christ's name is honored on earth. (13th C KA 105)

There are reasons to believe that the earlier stages in the historical development of Bulgarian, when the post-verbal type of clitic placement was most common, involved a T-final phrase structure. (More discussion to follow in section 6.1.) I propose that post-verbal clitics are arguments of V^0 that move and adjoin as heads to T^0, attracted by a special feature on T^0, just like second-position clitics are. Other structures for post-verbal clitics can be conceived of, but this one has the advantage that it can account naturally for the historical change from one type of clitic to the other by a single change in the headedness of TP.

   The movement account of post-verbal clitics is consistent with the lack of clitic doubling in the same historical period. Post-verbal type clitic placement is found in the texts generally up to the 17th C. Recall that the first examples of clitic doubling were from the 17th C. The structure in (44) is an analysis of the post-verbal type of clitic placement which captures this correlation.

(44) $[_{TP} [_{vP} [_{V'} t_i V^0]] [_{T^0} CL_i T^0]]$

Left-adjunction to T^0 must be involved, because of examples like the following:

(45)   svȩtъ bo   mŏš stvorilъ *ja*   estъ
        *holy   because man created them.*CL *is*
        Because a holy man has created them.   (9th C, AA XII)

We also need to consider the possibility that the clitic is moved and adjoined as an XP to the right edge of TP; i.e., the mirror image of the second-position clitic placement. Such an analysis, though, is contradicted by the facts of (45). If the clitic was at the right edge of TP and the V-cl order derived because the verb was in a clause-final T^0, we would expect

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(i)   doideže oime c̄hvo   na zemli *se*   … XP … slavit
        *until   name Christ's on earth refl.*CL *… XP … honors*
        constructed example

   If mid-clause pauses were responsible for clitic orders such as the one in (43), we would expect orders such as (i) to be attested as well, contrary to fact.

that in sentences with auxiliary verbs the clitic would follow the auxiliary, and not the main verb. Yet this is not what is observed. Thus it appears that the post-verbal clitics after Spell-Out are better analyzed as head categories associated with the verb rather than as XPs adjoined to TP.

One could speculate at this point that perhaps the pre-literary language (6th–9th C) had clitics adjoined to the right edge of TP. Such a possibility is suggested by examples like the following, where the clitic is not adjacent to the verb but appears clause-finally. In (46) the accusative 1sg clitic *mę* is the direct object of the verb 'hear' but is separated from it by a participial clause.

(46) i   da   ne   kto,   slyšavъ sïa   gl<agol>ęšta   *mę*,
      and OPT   NEG   *who*   *hearing* *this* *saying*   *me*.CL

      vъznepštuetъ nas. . .
      think   *us*

      'And the one who hears me say this, let him not consider us . . .
      (15th C, EE 28.3)

Such a possibility, however, remains clearly hypothetical since this was the only example found in the texts where the verb was separated from the post-verbal clitic. If indeed the pre-literary language had at some point XP clitics appearing at the right edge of TP, the earliest literary language (9th C) must have already witnessed a change in the status of clitics. Such a type of clause-final placement is typologically very rare; Klavans (1995) gives examples of only 3 such cases: Ngancara clitics, Old Indic preverbs, and Classical Greek *ou*. It is important to note that the three languages Klavans discusses as having this typologically rare type of clitic-placement are all T^0-final languages. Thus it is not inconsistent with the evidence available that the earliest Slavic had TP right-adjoined clitics.

4.4. *Ambiguous Patterns*

4.4.1. *V1 Clitics*

In many cases the clitics cannot be unambiguously classified as one of the above three types. An example of such ambiguity are the clitics appearing after the verb when the verb is first in the clause or follows a conjuction:

(47) dastъ   *ja*   prodavčii da ja prodastъ
      gave.3SC *her*.CL *trader*   *to her sell*.3SG

      He gave her to the trader so that the trader would sell her.
                                                        (14th C, ms. 1348)

(48)   i   posla *mę*   o*ᵗ*съ   къ va.
       *and sent   me.*CL *father to you*
       And the Father sent me to you.   (10th C, EJ 32b.8)

   In the surface string V1–cl the clitic is ambiguous between the three
basic types (with several syntactic structures possible).

(49)a. $[_{CP}\ [_{C^0}\ V_i]\ [_{TP}\ \text{cl}\ [_{TP}...t_i...]]]$ (second-position clitic with I^0-
         to–C^0 movement)

    b. $[_{TP}\ V^0\ [_{T^0}\ \text{cl}\ T^0]]$ (post-verbal clitic)

    c. $[_{TP}\ [_{T^0}\ \text{cl}\ T^0]\ V^0]$ (pre-verbal clitic with PF readjustment)

4.4.2. *The #X(P)–cl–V Pattern*
A second ambiguous type of clitic placement is exemplified in sentences
like (50). The clitic in this case could in principle be either second-position
or pre-verbal.

(50)   ljudje koi *sę*   obrtajętъ vъ grad Skopьskomъ
       *people who refl.*CL *appear   in town Skopie*
       people who live in the town of Skopie   (13th C, KA 12)

5. QUANTITATIVE STUDY OF CLITIC PLACEMENT

One of the central questions in this investigation is whether a second-
position system was ever in place in Bulgarian. This seems likely, con-
sidering that this language is closely related to Serbo-Croatian, a second-
position language. If indeed Bulgarian had second-position clitics at some
previous stage, then the next question arises – was this system itself an
innovation, or was it simply inherited from Indo-European? Given standard
assumptions about Indo-European clitics and their histories in the des-
cendent languages, a finding that a second-position clitic system was lost
and then emerged in Bulgarian would be very surprising, and of particular
importance.
   I performed a quantitative study of the distribution of the various clitic
types, assembling a corpus of available historical texts. The results of the
quantitative study are presented in Table III.[33]

[33] No texts were available from the 11th and 12th centuries, only short texts were avail-
able from the 9th, 13th and 16th centuries, and the available texts from the 14th, 15th, and

TABLE III

Clitic placement in the history of Bulgarian (clitic types in percent of total number of clitics per century)

	9th C	10th C	13th C	14th C	15th C	16th C	17th C	18th C	19th C
1. 2P	13.6	7.9	14.3	1.0	0	9.5	10.1	5.0	3.6
2. pre-verbal	0	0	0	0	0	0	5.5	8.0	16.3
3. post-verbal	50.0	31.5	4.8	53.3	72.3	76.2	8.4	8.3	1.7
4. V1–cl	27.3	34.8	14.3	42.1	27.7	14.3	44.8	39.7	16.3
5. #X(P)–cl–V	9.1	25.8	66.7	3.6	0	0	31.2	39.0	62.2
Number of clitics	22	89	21	197	101	21	346	398	362

As discussed above, the #V1–cl and the #X(P)–cl–V patterns are ambiguous as to the type of clitic involved. Undoubtedly, in the Old Bulgarian period in particular, some of these orders involve second-position clitics, yet we cannot be certain in what proportion. One option is to not consider ambiguous examples such as these at all. However, this is not something we can afford, given the limited number of historical manuscripts available, and furthermore given that clitics in the Old and Middle Bulgarian period accounted for only a small fraction of the pronouns.

An alternative to excluding the ambiguous orders would be to consider whether all potential clitic types that these could represent are indeed attested, for any given time period. Based on the data in Table III, from the 9th to the 14th C, all clitics in the #X–cl–V pattern must be second-position and not pre-verbal, as there are no unambiguous cases of pre-verbal clitics at these times, while second-position clitics are found. It would be an unlikely coincidence, if all pre-verbal clitics happened to occur in the #X(P)–cl–V pattern. On the other hand, in the 17th, 18th, and 19th centuries, the pattern #X–cl–V likely reflects both an underlying second-position and pre-verbal placement of the clitic, as both types are independently, unambiguously, attested.

Given these considerations, I divided the #X–cl–V clitics between the second-position and pre-verbal patterns in a ratio corresponding to the independently established ratio of the unambiguous second-position and pre-verbal clitics for each time period. For instance, the 31.2% #X–cl–V

16th centuries yielded only a limited number of clauses containing clitics. The texts from the 9th to the 18th C were considered in their entirety. Random samples of the 19th C texts were studied, with the goal of collecting examples of clitics comparable in number to those from the preceding two centuries.

TABLE IV

The corrected distribution of 2P, pre-verbal and post-verbal clitics

	9th C	10th C	13th C	14th C	15th C	16th C	17th C	18th C	19th C
1. 2P	31.2	51.7	94.4	7.9	0	11.1	54.9	33.2	17.7
2. pre-verbal	0	0	0	0	0	0	29.9	53.1	80.3
3. post-verbal	68.8	48.3	5.6	92.1	100	88.9	15.2	13.7	2

orders in the 17th C were split between second-position and pre-verbal clitics in a 10.1:5.5 ratio, as unambiguous 2P clitics are at 10.1% and unambiguously pre-verbal clitics are at 5.5% for this century. For the 9th–14th C period, this meant that all #X–cl–V orders were assigned to the second-position clitic type, since the unambiguously pre-verbal clitics were at 0%.

The ambiguous #V–cl orders were treated in a similar way. For the 9th–16th C period there were no independently attested pre-verbal clitics, thus the #V–cl were split between the remaining two types of clitics – post-verbal or second-position. For the 17th–19th C period, the #V–cl were divided between the three types of clitics attested.

The corrected results are shown in Table IV. The performed pro-rating of ambiguous orders is not biasing the conclusions. In fact, by pro-rating the ambiguous cases and dividing them between the unambiguous categories of clitics, we obtain a representation of the clitic types that is closer to the actual one. That is, by simply removing the ambiguous cases from the calculation, we would be unduly increasing the percentage of clitics of the post-verbal type.[34]

We can observe that during the 9th to 13th century, second-position clitics were on the rise, increasing at the direct expense of the post-verbal clitics. During the period 17th–19th century second-position clitics were gradually declining, being replaced by pre-verbal clitics. We are witnessing a second-position system gaining a statistical advantage over another, post-verbal system, and then gradually losing ground to a new competitor, a pre-verbal system of clitic placement.

The sharp decline in second-position clitics in the 14th–16th centuries is unexpected. This paper is not the place to discuss philological matters in detail, but briefly, what we see in the case of clitics, simply reflects a general fact about the literary style of writing during the Middle Bul-

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[34] For further discussion on the use of ambiguous surface forms in diachronic linguistic research see Kroch (1989), Santorini (1993), Taylor (1994).

garian period. Scholars agree (cf. Ivanova-Mirčeva and Haralampiev 1999; Gâlâbov 1971, among others) that during the period 13th–15/16th C, when the Târnovo literary style was dominant, there was a sharp separation between the written language and the vernacular. In contrast, in the Old Bulgarian period (9th–11/12th C), the written language, which was dominated by the Pliska-Preslav and Ohrid literary schools, was much closer to the vernacular. In fact, the Târnovo tradition followed the example of the earliest Old Church Slavonic manuscripts, now lost but still available then.[35,36]

In sum, we can be fairly confident that the rise in second-position clitics between the 9th and 13th centuries more or less accurately reflects the tendencies in the spoken language at the time. Furthermore, we can take the distribution of clitics in the 14th–16th centuries to be a reasonably good indication of the situation immediately prior to the period of available records.

The very low frequency of second-position clitics in Middle Bulgarian should thus not be interpreted as indicative of a sudden change in the grammatical system of the language. It is possible furthermore, on the basis of the data for the 17th–19th C, to project back and estimate the frequency of second-position clitics for the 14th–16th C. Fitting the best logistic function to the available frequencies predicts 99% of second-position clitics for the 13th C. This fits the observations that we have for the 13th C (94.4%) and suggests that they are reliable despite the small number of tokens available for this century.

In the next section I will discuss the grammatical underpinnings of the rise and fall of the second-position clitic system.

6. Historical Changes in the Grammar of Clitics

Language change is intimately linked to language acquisition. A change starts when a generation of users, in the course of their language acquisi-

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[35] For instance, Gâlâbov (1971), in the preface to the edition of *Pohvalno slovo za Evtimij*, the text from the 15th C included in the present study, discusses the language of the author, Grigorij Camblak, and concludes on the basis of the phonology, choice of lexical items and syntax, that Camblak's language follows the earliest traditions in the Old Bulgarian literature, established with the work of Cyril and Methodius, prior to the establishment of the Pliska-Preslav and Ohrid literary schools. Camblak's language is thus more representative of formal early Old Church Slavonic than it is of Middle and even of Old Bulgarian.

[36] Note also that one of the texts from the 10th C and the texts from the 13th C were civil documents and thus their language is likely to be closer to the vernacular than the church-related texts of the 14th and 15th C.

tion, posits a different grammar than that of the previous generation. The new grammar is propagated as its speakers produce the linguistic evidence that becomes the input to the next generation of users. At least three lessons from first language acquisition are relevant to understanding language change.

One lesson is that children's grammars differ from the adult target grammar in a particularly constrained manner. The Principles and Parameters framework has proved to be successful in accounting for the restricted variation between the grammars posited during acquisition. In their selection of grammars based on the linguistic input they are exposed to, children are guided by universal principles and possible parameter settings, a Universal Grammar (UG) provided by their mental faculty of language. Similarly, language change proceeds in a highly systematic and constrained way. Languages do not change arbitrarily and not all logically possible changes are attested. The empirical results of the quantitative study presented in the previous section confirm this claim. Only 3 types of clitics are found in the history of Bulgarian, all synchronically attested in the world's languages. There are no examples of, e.g., clitics placed in the midfield of the clause, that is, separated by the beginning of the clause/intonational phrase by more than one constituent and also separated by the main verb/auxiliary. Transition from one to another type of clitic system does not manifest itself in such 'intermediate' placements. Rather, the change is discrete – from post-verbal to second-position, and from second-position to pre-verbal type of system. All this suggests that language change is indeed governed by the principles and parameters of UG, as is to be expected. Accordingly, the suitability of the Principles and Parameters approach to modeling language change, in particular diachronic syntax, has been recognized by researchers in the generative framework (see e.g., the overview in Battye and Roberts 1995; Pintzuk et al. 2000).

The second lesson learned from language acquisition concerns the variability of linguistic behavior. Children's performance during the process of acquisition is not uniform at any given stage, but is gradual, with overlapping patterns. Similarly, for any century, the historical texts in our study yield clitics of more than one type. The grammar competition model, as proposed in Kroch (1989, 1994), and further explicated in Lightfoot (1999, ch. 4), Yang (2000) and others, offers an explanatory account of the abrupt, parametric change in grammars and the gradual nature of change as observed in the output language. The model holds that just as children have to evaluate different hypotheses about the underlying grammar against the evidence from the available linguistic data, so in the course of the language change two (or more) parametrically different grammars may be simultan-

eously posited by language users. The grammars are weighted according to how well they can account for the non-uniform linguistic environment, and one grammar wins over time, as it gets selected by more and more users. Thus, whereas grammars differ in discrete ways, transmitting these coexisting grammars in successive generations of learners in changing ratios is responsible for the gradual nature of the course of language change. Following the grammar competition model, the changes in the clitic systems in the history of Bulgarian are posited to be parametric. One is linked to a switch in the headedness of TP, and the other to a switch in the nature of phrasal movement to Spec,TP. Old and new patterns co-exist since the grammars generating them co-exist and compete with each other.

The third lesson is that language learning is cue-based (Lightfoot 1999). Just as children 'ignore' certain patterns in the linguistic environment which are counter-evidence for the grammars they are positing, not every attested sentence is considered by speakers in evaluating competing grammars. As will become clear, learners are able to posit a new analysis of clitics, e.g., pre-verbal, in the presence of sentences generated by the old, second-position grammar. The new grammar is posited because the overwhelming evidence in the linguistic environment supports it, not because all of the evidence does so.

6.1. *From Post-verbal to 2P Clitics*

The increase in the number of second-position clitics in the 9th–13th century period came at the expense of the post-verbal clitics, i.e., the clitics that appear after the verb when the verb itself is not in first position. In section 4, I proposed that post-verbal clitics are attracted by T^0. Non-tensed verbs, at least, do not move to T^0. I assume they move to the highest functional head below T^0. For concreteness, I assume one such head, Asp^0. Merger in the morphological component creates a complex head with V^0 and the clitic as constituents, as in (51a). After linearization and the assignment of prosodic domains, the clitic satisfies its leftward prosodic dependency by forming a prosodic word with the verb.

(51)a. $[_{V^0}$ V^0 CL]

   b. $[[V^0]_\omega$ =CL $]_\omega$

The interesting question then is why clitics that are already associated morpho-syntactically with the verb, i.e., that form a complex head with it, do not develop into affixes but become, instead, second-position clitics. Contact with Greek has to be ruled out as a reason for the reanalysis of clitics, since Byzantine Greek had already lost its second-position clitics.

One may think that a factor in the development of pronominal clitics into second-position clitics is the existence of clitic 'particles' in Bulgarian, like *bo* 'because' or the emphatic clitic *že*, which appeared in second position, as in the examples below:

(52) mnog *že* vrěd vъ nich kryaše *sę*
 a.lot EMPH *harm in them hide refl*.CL
 A lot of harm was hiding inside them. (15th C EE 29.2)

(53) bl(a)gyj *že* b(o)gъ pomagaet *mi*.
 kind EMPH *god helps me*.CL
 The kind God helps me. (14th C P 25b.14)

(54) vâs[a]česki *bo* dïavol hotě uloviti ego
 in.every.way because devil want.PR.PART *catch*.INFIN *him*
 tâštaše *sę*
 strove refl
 Because the devil, wanting to catch him, was striving in every way. (14th C P 35b.14)

An argument based on analogy, of course, runs into difficulties of formal implementation. How can such non-pronominal clitics 'attract' the post-verbal pronominal clitics to the second-position? This is impossible to achieve on the view advocated here, that syntax manipulates clitics without 'look ahead' information about the specifics of their phonological requirements, and that the second position is epiphenomenal, the result of a coincidence of syntactic placement at the edge of the clause and a prosodic deficiency to the left.

Even more interestingly, the findings of an emergence of a second-position system challenge the accepted wisdom (e.g., Zwicky 1977) that a verbal clitic should develop into a verbal affix, and not become an independent word. The Old Bulgarian development is thus very puzzling because it goes against the expected direction of change. Independent laws of grammaticalization, in particular unidirectionality in the change of linguistic forms from independent lexical elements to inflectional morphemes, are commonly invoked in historical linguistics (e.g., Givón 1971; Lehmann 1995; Bybee et al. 1994, among many others). Yet the findings in this paper suggest that language change does not proceed in a uniform way. They underscore a view like the one advocated by Lightfoot (1999, ch.8) that no independent principles of historical development exist, that changes in grammar result solely from properties of the language faculty –

the principles and parameters of UG – which guide the acquisition system faced with a triggering experience in the linguistic environment.

I suggest that the change from post-verbal to second-position clitics can be viewed as a reflex of the change from T^0-final to T^0-initial word order that Old Bulgarian was already undergoing. The switch in the headedness of TP triggers the eventual reanalysis of clitics. Post-verbal clitics are attracted by T^0, and they continue to be when T^0 becomes initial with respect to its complement. However, with this single change in the position of the clitic relative to the verb, an opportunity arises for other elements to intervene between the two. Specifiers of various projections, in particular, would give the opportunity for XPs to surface between the clitic and the verb, as specifiers are normally to the left, even in head-final languages. As also pointed out in Roberts (1997, p. 26) "No clear case of a generally Specifier-final language has been discovered."[37] Assuming that adverbs are specifiers of dedicated functional projections, as in the analyses of Alexiadou (1997) and Cinque (1999), and that left-adjunction to these and other projections was available, XPs would surface between the clitic in T^0 and the verb (moved to Asp^0 or not). Such word orders would be positive evidence that the verb and the clitic do not form a complex head in syntax. Moreover the clitic's prosodic dependency continues to be to the left, and the clitic is realized at PF as forming a prosodic word with elements immediately to its left. Arguably, these changes in the linguistic environment lead learners to posit a new representation for the clitic, from (55a) to (55c)/(55b).

(55)a.　$[_{TP} [_{vP} [_{V'} t_i V^0]] [_{T^0} CL_i T^0]]$

　　b.　$[_{TP} [_{T'} [_{T^0} CL_i T^0] [_{vP} ... t_i ...]]]$

　　c.　$[_{TP} CL_i [_{TP} ... [_{vP} ... t_i ...]]]$

Two re-merge options exist for the clitic, once it is attracted by T^0 – it can be merged as a maximal projection (as in (55c)), or as a head (as in (55b)). This is so because of the clitic's non-branching status and inherent D^0/DP ambiguity. In many cases, i.e., in the absence of CP-related material, the two grammatical options as in (55b) and (55c) would yield the same surface orders. Yet clauses with a filled Spec,CP or C^0 provide evidence that the chosen representation in the new T^0-initial grammar was (55c) rather than (55b). As discussed in section 4.1, clitics typically follow material in the CP-domain and precede pre-verbal phrases, which are

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[37] See, however, Bonet (1989), Rosen (1989), Friedemann (1992), and Guasti (1993) for claims that Spec,VP in various Romance languages is to the right (M. den Dikken, personal communication).

arguably in Spec,TP (e.g., examples (30), (31), (33), (34)). There are very rare instances in which the clitic follows both a CP-related element and a pre-verbal phrase (e.g., examples (35) and (36)). The structure in (55c) immediately accounts for this fact. The typical word-orders are directly derived by the TP-adjunction position for the clitic, whereas the clitic-third orders result from the rare instances of material in the CP-domain being excluded from the intonational phrase containing the clitic. On the other hand, the structure in (55b) would necessitate the claim that, typically, Spec,TP may not be filled in the presence of a clitic, but that in some rare cases it could be. Such a claim would be unprincipled, and moreover, it will be argued in section 6.2 that clauses in Old Bulgarian required a topicalized XP to be merged as a Spec,TP.

As the above discussion reveals, the empirical facts concerning the new T^0-initial, 2P grammar, are best explained by the structure in (55c) rather than the one in (55b). The question remains as to why learners would posit (55c) rather than (55b) in the first place, given that, after all, the feature-checking relationship between T^0 and the clitic is satisfied in both structures. I would like to sketch the following account of this choice. If the clitic is adjoined to T^0, in the morphological component it will form a complex head with the verb as the verb and T^0 will undergo merger. This happens in the case of post-verbal clitics. Post-verbal clitics, however, not only form a complex head with the verb, but also have the verb as their phonological host, whereas 2P clitics have a different constituent as a phonological host. It is natural to suppose that a structure where the clitic forms a complex head with the verb but a prosodic word with a different constituent is dispreferred. Given the option of a mismatch between the morpho-syntactic and prosodic structuring, as in (55b), and the lack of such mismatch, as in (55c), learners choose the second option. Note that a similar reasoning is behind the explanation offered here for the fact that the pre-verbal clitics in modern Bulgarian are no longer enclitics. They are adjuncts to a functional head in the extended projection of the verb and as such they form a complex head with the verb in the morphological component. Because of a preference for the morpho-syntactic and prosodic hosts to be the same, the pre-verbal clitics lose their enclitic status and now they form a prosodic word with the verb to their right.

In support of the particular analysis of the two types of clitics, and the proposal that a switch in the headedness of TP triggers the reanalysis of clitics, note the following. While it is not necessary that a language with second-position clitics be head-initial (Mayo and Pashto are examples of Infl-final languages with second-position clitics) it appears to be the case that post-verbal clitics are found only in Infl-final languages. Klavans'

(1995) clitic survey lists Ngancara, the Old Indic languages and Classical Greek as examples of languages with post-verbal clitics. The latter two are generally accepted to be head-final (see Masica 1991; Taylor 1990, 1994, among others), and Klavans' discussion and examples of Ngancara makes it likely that this language is also head-final. Thus there appears to be a relation between headedness and clitic type, which is captured by the present proposal.

The T^0-final phrase structure of Old Bulgarian can be clearly seen in examples like (14) and (45) where the main verb precedes the finite auxiliary which appears in clause-final position. Note that the finite auxiliaries of Old Bulgarian are not clitics themselves, and thus are not post-verbal simply because of the prevalent pattern of post-verbal clitics at the time. This type of word order between finite and non-finite verb, reflecting the headedness of TP, is predominant in the texts from the 9th–13th century and in those from the 14th–16th century. As discussed earlier, texts from the latter period follow the most conservative literary style and are thus representative of even older stages in the language. In the 17th–19th century texts these word orders are not found.

6.2. *From 2P to Pre-Verbal Clitics*

Since some time after the 13th C, second-position clitics have been in decline. The data for the 17th–19th C (cf. Table IV) show that pre-verbal clitics were increasing at the expense of second-position clitics.

I propose that independent changes in the phrase structure of the language eventually lead to a situation where speakers no longer had positive evidence for a second-position clitic system and instead postulated that clitics form a complex head with the verb. In particular, I argue that Spec,TP ceased to be a position that obligatorily has to be filled by a topicalized constituent. Topicalization is taken here to mean obligatory A′-movement of an XP to Spec,TP. The XP could be the subject or another constituent. When an XP other than the subject is moved to Spec,TP, the subject stays in Spec,vP and appears post-verbally, as the verb raises out of the vP. Contemporary Bulgarian does not have topicalization of this kind. In the contemporary language XPs can be A′-moved but the position of their re-merge is higher than TP, and the pre-verbal subject may follow them, merging as a Spec,TP.

The loss of topicalization to Spec,TP (in the sense discussed above) has two effects. Recall that there were two types of potential hosts for the second-position clitic: elements in C^0/Spec,CP, and elements topicalized to Spec,TP. The first option is represented in (56a), where the host for the clitic is available outside the TP (e.g., a complementizer, a *wh*-word, a

conjunction). In such a case, an element in Spec,TP intervenes between the clitic and the verb in T^0. The second option for cliticization is represented in (56b): the clitic is spelled out after the constituent in Spec,TP (either as the result of reordering Merger, or as the result of pronunciation of a lower copy).

(56)a. $[_{CP} \text{X(P)} [_{TP} =\text{CL} [_{TP} \text{XP T}^0 [_{AspP} [_{Asp^0} \text{V}^0 \text{Asp}^0]]]]]$

   b. $[_{TP} [_{TP} \text{(cl)} [_{TP} \text{XP} =\text{CL T}^0 [_{AspP} [_{Asp^0} \text{V}^0 \text{Asp}^0]]]]]$

Now consider the effect of the loss of topicalization to Spec,TP. For the structure in (56a), the element that separated the second-position clitic from the verb is not there anymore, resulting in a dramatic increase in the cases where the clitic becomes adjacent to the verb. Note that the loss of topicalization to Spec,TP does not completely eliminate, by itself, the evidence for the second-position status of clitics. Adverbs, which are assumed here to be merged as specifiers of functional heads, when present, would intervene between the clitic and the verb. The same would hold for negation. Rather, the claim being advanced here is that loss of topicalization to Spec,TP significantly increases the number of cases where the clitic ends up adjacent to the verb. When that number is sufficiently high and reaches a critical threshold, learners exposed to such a linguistic environment may posit a different grammar for clitics. This happens despite the fact that in a certain number of cases the learners do in fact hear counterexamples to their newly posited grammar – namely clauses with negation and adverbs lower than T. In other words, given the overwhelming presence of a certain pattern in the input, counterexamples to the grammar posited to generate that pattern are not attended to.

Consider more closely the situation with intervening adverbs. A certain number of clauses without adverbs (and without negation) did undoubtedly exist. Assuming their rate stayed constant between the grammar with topicalization to Spec,TP and the one without (as there are no reasons to assume otherwise), the ratio of cases of the clitic being adjacent to the verb would increase, as the second grammar gains advantage. To illustrate, Grammar 1 and Grammar 2 would each generate the following structures, but only in the output of the second grammar would we have adjacency between the clitic and the verb.

(57)   Grammar 1:
   a. $[_{CP} \text{X(P)} [_{TP} \text{CL} [_{TP} \text{XP V}]]]$

   b. $[_{CP} \text{X(P)} [_{TP} \text{CL} [_{TP} \text{XP AdvP V}]]]$

(58)   Grammar 2:

    a. $[_{CP}$ X(P) $[_{TP}$ CL $[_{TP}$ Ø V]]]

    b. $[_{CP}$ X(P) $[_{TP}$ CL $[_{TP}$ Ø AdvP V]]]

With a sufficient number of cases like (58a) in the linguistic input, learners can hypothesize a different analysis of clitics, despite the fact that they also encounter examples like (58b).

The second effect of the loss of topicalization to Spec,TP concerns the structure in (56b). In this case, the actual host for the clitic is no longer available. Again, we can illustrate the situation with potential intervening adverbs. In the old grammar, the one with topicalization to Spec,TP, the constituent fronted to Spec,TP serves as a host for the clitic, as in (59a, b). In some cases, as in (59a), the clitic ends up adjacent to the verb. In others, as in (59b), an adverb intervenes. In the output of the new grammar, only clauses with adverbs provide a host for the clitic, as in (60b).

(59)   Grammar 1:

    a. $[_{TP}$ CL $[_{TP}$ XP V]]

    b. $[_{TP}$ CL $[_{TP}$ XP AdvP V]]

(60)   Grammar 2:

    a. $[_{TP}$ CL $[_{TP}$ Ø V]]]

    b. $[_{TP}$ CL $[_{TP}$ Ø AdvP V]]]

Again, when a critical threshold is reached with cases like (60a) in the linguistic input, learners hypothesize a different analysis for clitics, despite the fact that they also encounter examples like (60b).

Obviously both effects of the loss of topicalization to Spec,TP are not favorable for the propagation of the second-position clitic system. This grammatical change both reduces positive evidence for second-position cliticization and removes potential hosts for the second-position clitics.

As clear from the above discussion, the developments in the clitic system in Modern Bulgarian (17th–19th C) are taken to be the result of grammar competition between two systems: a grammar with topicalization to Spec,TP and second-position clitics, and a grammar with no topicalization to Spec,TP and clitics adjoined to a functional head in the extended projection of the verb.

Let us examine in more detail the phrase structure of Old Bulgarian. The Spec,TP position serves as a landing site for a variety of XPs. When

a constituent other than the subject is topicalized to Spec,TP, the subject appears postverbally, presumably in its base-generated position in Spec,*v*P. The syntactic mechanism behind this constraint on word orders is presumably similar to the one responsible for the Germanic V2 phenomenon. A feature on a functional head, here T^0, attracts at most one XP to the specifier position. Adjunction to the functional projection, here TP, is not in principle prohibited (after all, I argued that 2P clitics in the history of Bulgarian adjoin to TP); it simply does not arise for XPs in general, as it is not triggered by further feature-attraction.

The following are examples of sentences with topicalized adverbials (61) and objects (62); the larger context, where it is provided, serves to show that the post-verbal subjects are not interpreted as focused. In contemporary Bulgarian such sentences are not felicitous.

(61) a. i otvěštavъ starecъ reče emu: … i <u>vъ</u> <u>drugǫǫ</u>
and answering the.old.monk told him … and in other

<u>ned(ě)lę</u> prïide starecъ kъ bratu…
Sunday came the.old.monk to young.monk

And in response, the old monk told him: … And the next Sunday, the old monk came to the young one.

(14th C P 26a.4)

b. <u>se</u> prịǫtъ b(og)ъ pokaanïe tvoe.
thus accepts God repentance your

Thus God accepts your repentance. (14th C P 26a.12)

c. <u>togizi</u> ze prorok Ilïę yčenikatok si Elisea i utide na edno
then took prophet Ilija student refl Elisej and went to one

męsto… i <u>tamъ</u> reče Ilïa na Elisea.
place… and there said Ilija to Elisej

Then the prophet Ilija took his student Elisej and went to a place … There Ilija told Elisej. (18th C SD 637.3)

d. <u>pakъ</u> utide angelъ i vtorïju patъ…
again went the.angel and second time

The angel went there again for the second time.

(18th C SD 629.9)

TABLE V

Rate of Topicalization

	17th C	18th C	19th C
Topicalization	52	45	36
No topicalization	111	152	176
CLLD	1	2	9
% Topicalization	**46.4**	**29.2**	**19.5**

(62)a. i   togiva otide Ioannь, i   najde čl(ově)ka... i   iscěli go
       and then   went Ioan   and found the.man   and cured him

       i   drugo mnogo čjudo   stori ap(o)s(to)lь tamo.
       and other a.lot   wonder did   the.apostle   there

       And then Ioan went and found the man . . . and cured him. And
       the apostle did many more wonders.   (17th C, TD 78.15)

   b. tova se   pomoli Juda bogu.
       that refl asked   Judas God
       Judas asked God that.   (18th C SD 596.6)

The conclusion that topicalization to Spec,TP was gradually lost in
Modern Bulgarian is supported by the results of a quantitative study of
word order in the texts from the corpus. I examined a sample of 1500 finite
clauses, 500 per century, for the 17th–19th C period. I counted the number
of occurrences of clauses with fronted direct and indirect objects, or with
fronted VP–level adverbials. I also counted the number of clauses without
topicalization, i.e., where an object or an adverbial appeared post-verbally.
Finally, I also calculated occurrences of objects being Clitic Left Dislo-
cated (CLLD). The CLLD construction involves a left-dislocated object in
clause–initial position coindexed with a clitic inside the clause. Whether or
not CLLDed XPs are base-generated as clausal adjuncts (see Cinque 1990,
Iatridou 1995, Aoun and Benmamoun 1998 for discussion), they do not in-
volve topicalization as defined here. Finally, I calculated the percentage of
topicalization cases out of all cases involving objects and VP–adverbials.
Table V presents the results.[38]

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[38] The numbers for each century do not add up to 500, as many clauses did not have
VP–adverbials or objects.

TABLE VI

Rate of Left-Dislocation

	17th C	18th C	19th C
Dislocation	19	60	69
No dislocation	88	139	114
% Left-dislocation	**17.8**	**30.2**	**37.7**

Table V clearly shows that topicalization to Spec,TP is declining over the course of the three centuries. As I argued earlier, this change in the grammar of the language affected the second-position clitic system and contributed to the rise of verbal clitics in two ways: by not providing potential hosts for the second-position clitics and by removing the evidence against treating clitics as forming a complex head with the verb.

Topicalization is gradually replaced by left-dislocation. Instead of undergoing A′-movement to Spec,TP, arguments are being base-generated in clause-peripheral position at an increased rate. These proposals are supported by the results of a second quantitative study of word order in Modern Bulgarian. I again studied a sample of 1500 declarative finite clauses, 500 per century, different from the ones considered for estimating the rate of topicalization above. Subjects and TP-adverbials that preceded a complementizer, or that preceded and were separated from the verb by another XP, were counted as dislocated. Similarly, CLLDed objects were included in the number of left-dislocated elements. Clauses with no left-dislocated arguments (but where such arguments were available) were counted as well. The results are presented in Table VI.

The above two quantitative studies examined clauses both with and without clitics. Though it is unlikely (and indeed impossible on the view of the role of syntax in the placement of clitics advocated here), it could still be the case that while the rate of topicalization was generally declining over the three centuries, in clauses with second-position clitics topicalization was not affected, perhaps in order to always provide the clitic with a host. To test that the loss of topicalization indeed had an effect on the clitic system, I further examined the clitic corpus for the 17th–19th C for cases where the clitic would appear clause-initially, immediately followed by the verb. Of course since we are dealing with enclitics, we would never find clitics in absolute first position, so the right environment to examine are clauses introduced by a conjunction. Thus I counted the instances of

TABLE VII

Absence of topicalization in clauses
with clitics

	17th C	18th C	19th C
conj-cl-V	5	10	18
conj-XP-cl-V or			
conj-cl-XP-V	31	29	16
%	**13.9**	**25.6**	**52.9**

the pattern conjunction–clitic–verb where clearly topicalization has not
applied. An example of this pattern is the following:

(63)   A   koi   ne   ljubat   za   svoj rod   bolgarski znati
       and who NEG *love.*3PL *about refl   people Bulgarian know.*INF
       no   se   obraštajut na čužda   politika i   na čuždi   jazik...
       *but refl turn.*3PL   *to foreign politics and to foreign language*
       And those who do not like learning about their Bulgarian people
       but turn to foreign politics and to foreign languages... (18th C,
       HS)

I also counted the number of conj–cl–XP–V, as in (64), and conj-XP-cl-
V, as in (65), i.e the cases where topicalization has most probably applied.

(64)   ami se   mnogo čjudiha   kakъ da storъtь
       *but refl.*CL *a.lot   wondered how to act*
       But they wondered a lot what to do.   (17th C TD 108.12)

(65)   i   mnogo se   m(o)liha   ap(o)s(to)lu.
       *and a.lot   refl.*CL *begged.*3pl *the-apostle*
       And they begged the apostle a lot.   (17th C, TD 86.1)

Finally, I calculated the percentages of the conj–cl–V pattern out of
the total number of constructions with conjunctions and clitics that were
considered. The results are presented in Table VII.

As seen in Table VII, the number of clauses involving clitics and no
topicalization increases from the 17th to the 19th C. Thus we can conclude
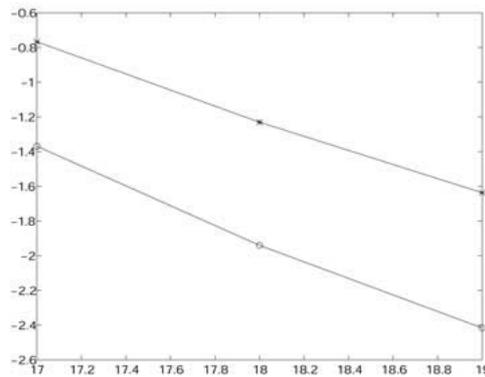that the loss of topicalization interacts with the placement of clitics. The

Figure 1. Loss of 2P and topicalization.

proposal that the loss of topicalization contributes to the disintegration of the second-position clitic system is thus well supported by the evidence.

Figure 1 shows the logistic transforms of the rate of second-position clitics and Topicalization. The two lines are almost parallel, suggesting that the two developments proceeded in similar fashion.

A parallel historical development from Wackernagel type clitics to verbal clitics has been described for Spanish by Fontana (1993), Rivero (1994, and related work) and for Greek in the Classical and Hellenistic periods by Taylor (1990). The transition of the Bulgarian clitic system shows a lot of similarities with the historical changes undergone by the Romance and Greek clitics. In particular, Fontana shows that loss of topicalization correlates with the loss of the second-position clitic system and its substitution by verbal proclisis in the history of Spanish.

6.3. *From Verbal Enclitics to Verbal Proclitics*

The contemporary Bulgarian clitic system, as discussed earlier, is cross-linguistically very rare. The only two other languages in which clitics have been claimed to have divergent phonological and morpho-syntactic dependencies, to the best of my knowledge, are Ngancara (Klavans 1995) and Brazilian Portuguese (Barbosa 1996). In Bulgarian, despite currently held beliefs in the literature (cf. Avgustinova 1994; Dimitrova-Vulchanova and Hellan 1999; Dimitrova-Vulchanova 1998; Tomić 1996, 2000; Rivero 1997; Rudin 1997; Franks 1998; Franks and King 2000; Schick 2000; Bošković 2001, among others), pronominal clitics are not enclitics. In the environment # X(P)-cl-V, the clitics do not form a prosodic word with the X(P) to their left, but with the verb to the right, thus the morpho-syntactic host and the prosodic host coincide. Yet the clitics have an additional requirement – they cannot appear first in the intonational phrase. Prosodic-

ally light elements at the left edge of the intonational phrase are sufficient to satisfy this requirement, but are clearly not suitable prosodic hosts, supporting my proposal that clitics always form a prosodic word with the verb with which they are in a complex head.

The question arises of whether the pre-verbal clitics of contemporary Bulgarian will lose the requirement not to be initial in the intonational phrase and will become verbal proclitics that are able to appear at the left edge of the clause. Indeed, this is the present-day situation in Greek and Spanish, languages that have evolved from predecessors with second-position clitic systems. In both languages once the change in the syntax of clitics was completed, i.e., according to the analysis developed here, clitics were no longer adjoining to TP but were reanalyzed as adjuncts to heads of functional projections forming complex heads with the verb, the direction of the phonological dependency also changed, i.e., clitics became proclitics.

It is plausible that the divergent phonological requirements on clitics in contemporary Bulgarian – the prohibition against appearing first in the intonational phrase, and the need to form a prosodic word with the verb (the latter requirement overruled only in case where the clitic itself has stress, as when it follows negation) – will be eventually resolved, and the clitics will undergo further change to proclitics.

In Macedonian, the language most closely related to Bulgarian, such a change has been completed. In clause initial position, (i.e., the equivalent to (1b)) pronominal clitics are fully acceptable, just as they are in Greek and Spanish (see, Tomić 1996; Franks and King 2000; Bošković 2001).[39]

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[39] Interestingly, Macedonian clitics show different phonological behavior in clauses with verbal or nominal predicates, as shown in Tomić (2000). Auxiliary *be* can appear first in the intonational phrase but the copula *be* cannot. Of more relevance for our discussion, pronominal clitics are not acceptable when initial in the intonational phrase, in case the predicate is a nominal (see (i), Tomić personal communication):

(i)a.   *Mu*   gi   ze   parite.
        him.DAT.CL *them*.ACC.CL *took the.money*
        You took his money.

   b.   **Mu*   e   tatko.
        him.DAT.CL *is*.CL *father*
        His is his father.

Thus, the change to proclisis has not been completed in all syntactic contexts. Note further that the clitic in (ib) has been analyzed as a 2P clitic, not just an enclitic, by Bošković (2001, pp. 256–257).

Some regional dialects of Bulgarian too have proclitics. The following examples (from Stojkov 1993) are from the Rodopi (South Western Bulgaria) and the Thracian (South Central Bulgaria) dialects:

(66) *Go*   zeme.
      it.CL *takes*
      S/he takes it.

(67) *Gi*   berat zelenki.
      them.CL *pick   green*
      They pick them green.

In summary, based on historical developments in the closely related Macedonian and in Greek and Spanish, it is likely, though not necessary, that Bulgarian pronominal clitics will cease to have the Tobler-Mussafia restriction on being first in the intonational phrase.

7. Conclusions

In this paper I have documented and provided a syntactic analysis of the diachronic changes in the Bulgarian pronominal clitic system. A corpus study of historical manuscripts reveals that three different types of clitic placement were operative in Bulgarian – post-verbal, second-position, and pre-verbal – and that they were chronologically related but also over-lapping to an extent. I show that between the 9th and the 14th–15th century, post-verbal clitic placement steadily decreased and was replaced by second-position cliticization. This finding alone is of considerable importance because it appears to be the first reported case in the literature of a rise of a second-position clitic system. Existing historical accounts of language change with respect to the grammar of clitics have documented only the loss of the clitic-second phenomenon. The detailed description and analysis of the rise of second-position clitics therefore contributes crucial information to our understanding of this clitic type and of the linguistic factors that make it possible.

The particular origin of the second-position clitic system is also surprising and very intriguing, because it goes against the expected direction of historical change. The accepted wisdom is that pronominal clitics develop towards an ever-closer integration with the verb, eventually becoming verbal affixes (Zwicky 1977). The earliest Bulgarian clitics are verbal associates, yet they become syntactically independent of the verb and

move to the second-position in the clause. Thus, the history of Bulgarian clitics answers a second very important question, namely whether there is a predictable directionality of historical change. To the extent that the results here are real, a serious challenge is presented to claims by "grammaticalization theory" (Bybee et al. 1994, Lehmann 1995, among others). Accordingly, the analyses developed here make no use of independent laws of historical change, and rely only on the possibility that, faced with certain cues in the linguistic environment, learners may posit a new grammar that differs from the old in parametric way, in accordance to UG. The results presented here and their theoretical interpretation support the grammar competition model of language change (Kroch 1989, 1994, among others).

The paper also documented the loss of the second-position clitic system in Bulgarian, starting around the 16th century. The analysis of this phenomenon and its relationship to changes in the syntax of A′-movement and properties of clausal projections contributes to the already documented cases of similar developments in Romance and Ancient Greek, thus allowing for richer cross-linguistic comparisons.

Ultimately, this paper underscores the fact that quantitative diachronic studies of syntax can be very useful in illuminating properties of the grammar of natural language.

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2. CS: *Codex Suprasliensis*. Excerpt in Schenker 1995.

Old Serbian

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Old Bulgarian

9th C

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13th C

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17th C

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18th C

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