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NONINITIALITY WITHIN SPELL-OUT DOMAINS:

UNIFYING THE POST-SYNTACTIC BEHAVIOR OF BULGARIAN DATIVE CLITICS*

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Possessive (nominal) and indirect object (clausal) clitics and clitics are homophonous in the Balkan Slavic languages and Romanian. Pancheva (2004) shows that this syncretism is not just morphophonological but that the two types of clitics constitute identical feature bundles bearing dative case. Yet, these dative clitics seem to exhibit distinct behavior in the nominal and clausal domains: in Bulgarian the nominal clitics appear in second position within the nominal phrase while the clausal clitics are verb-adjacent and non-initial within the clause. It is puzzling that the same syntactic objects exhibit such different distributional patterns. I argue that in Bulgarian this seemingly distinct behavior follows from the interaction of a distributional constraint on dative clitics, NONINITIALITY within Spell-Out domains, and the different structural properties of the syntactic domains they are associated with. In particular, a number of constituents can be pre-clitic in clauses because various structural positions are available above the clitic, while in nominal phrases no comparable positions are available. Besides the direct consequences of this approach for the treatment of cliticization, it also provides an insight into the nature of Spell-Out domains, nominal and clausal structure, and the nature of syntax/PF interactions.

1 Introduction

In Zwicky's (1977) classification of clitics, *special clitics* are those which are allomorphs of full form words and are not derived from them by phrase phonological reduction processes. Two essential properties of special clitics are that they lack lexical stress, depending on adjacent elements for phonological support, and that they are found in positions where their full form word counterparts are not. The indirect object and possessive clitics in the Balkan Slavic languages (Bulgarian, Macedonian, Serbo-Croatian) and Romanian have different distribution from non-clitic possessors and indirect objects and are *special* in Zwicky's sense:[1]

(1) Possessive clitics

    Brat   **mu**   naxrani kučeto.
    brother 3SG.M.POSS fed   the.dog

    'His brother fed the dog.'   (Bulgarian)

(2) Indirect object clitics

    Učitelkata **mu**   dade knigata.
    the.teacher 3SG.M.DAT gave the.book

    'The teacher gave him the book.'   (Bulgarian)

[1] Abbreviations used: SG – singular, PL – plural, F – feminine, M – masculine, N – neuter, {1, 2, 3} – number, ACC – accusative, DAT – dative, POSS – possessive, ADJ – adjectival (inflection), Q – question particle, REFL – reflexive, FOC – focus, TOP – topic.

The possessive and indirect object clitic paradigms in the Balkan Slavic languages and Romanian are completely homophonous. Relying on evidence from diachrony, possessor raising, clitic doubling, and the behavior of non-clitic possessors, Pancheva (2004) shows that this syncretism is not morphophonological. Instead, the two types of clitics are shown to constitute identical formal objects bearing dative case features, which can be interpreted as indirect objects or possessors.

However, the possessive and indirect object clitics appear to have distinct placement patterns in the two syntactic domains that they can be associated with: nominal phrases and clauses respectively. For example, in Bulgarian the nominal clitics appear in second position (2P) within nominal phrases following the left-most head (Ewen 1979; Tomić 1996b; Dimitrova-Vulchanova 2000; Embick and Noyer 2001, *i.a.*):

(3) Nominal dative clitics (possessors)

    a.   knigata **mi**
           the.book 1SG.DAT

           'my book'

    b.   novata **mi** kniga
           the.new 1SG.DAT book

    c.   novata **mi** interesna kniga
           the.new 1SG.DAT interesting book

    d.   trite **mi** novi interesni knigi
           the.three 1SG.DAT new interesting books

The clausal clitics, on the other hand, are left-adjacent to the verb (4a *vs.* 4b) unless this leaves them in CP-initial position (4c), in which case they surface right-adjacent to the verb (4d) (Hauge 1976/1999; Tomić 1996a; Franks and King 2000; Bošković 2001, *i.a.*). That they are verb-adajcent clitics and not 2P clitics can be seen in (4e).

(4) *Clausal dative clitics (indirect objects)*

    a.   Petko vinagi **mi** dava bonboni.
           Petko always 1SG.DAT give candy

           'Petko always gives me candy.'

    b.   * Petko vinagi dava **mi** bonboni.
           Petko always give 1SG.DAT candy

    c.   * **Mi** dade bononi Petko.
           1SG.DAT gave candy Petko

           'Petko gave me candy.'

    d.   Dade **mi** bonboni Petko.
           gave 1SG.DAT candy Petko

    e.   * Petko **mi** vinagi dava bonboni.
           Petko 1SG.DAT always gives candy

           'Petko always gives me candy.'

Given these placement patterns, it is puzzling that identical formal objects are verb-adjacent and non-initial in clauses, but 2P in nominal phrases. I argue that in Bulgarian this distinct behavior is only apparent and is not indicative of a difference in the constraints that govern clitic placement in the two syntactic domains in question. Instead, clitic placement is shown to follow from the interaction of a single constraint on dative clitics, NONINITIALITY within Spell-Out domains, and the different structural properties of clauses and nominal phrases. In particular, the relevant difference between these two syntactic domains

is that a number of constituents can be pre-clitic in clauses because various structural positions are available above the clitic, while nominal phrases cannot accommodate any pre-clitic material because within them no comparable positions above the clitic are available.

This paper is organized as follows. The next section summarizes Pancheva's (2004) argument for the formal identity of possessive and indirect object clitics and the clitic placement facts in nominal phrases and clauses. After outlining my assumptions about the syntactic behavior of Bulgarian clitics in section 3, I focus on their post-syntactic behavior for the rest of the paper. How the present approach derives the seemingly different distribution of possessive and indirect object clitics from the interaction of NONINITIALITY and the structural characteristics of nominal phrases and clauses is explicated in section 4. The nature of the NONINITIALITY constraint and how it is impossible to state it in prosodic terms are the themes of section 5. Section 6 concludes.

2 The Puzzle

2.1 Morphophonological Identity

For concreteness, I follow standard Minimalist assumptions (Chomsky 1995, 2000) and assume a modular approach to the syntax-phonology interface with a Late Insertion model of morphology (Halle and Marantz 1993, 1994; Embick and Noyer 2001, *i.a.*). Syntax manipulates abstract feature bundles without phonological content and the resulting hierarchical structures are fed (Spell-Out) to morphology which may further manipulate the syntactic structures.[2] I assume a Multiple Spell-Out framework with at least CP and DP (but not TP) as Spell-Out domains (Uriagereka 1999; Chomsky 2000, *i.a.*). After any morphological manipulation takes place, terminal syntactic nodes are replaced by phonological exponents at Vocabulary Insertion, which serve as the input to the phonological component where prosodic domains are built. Most elements which are descriptively called "clitics" are bundles of syntactic, morphological and phonological features which determine their behavior across the three modules. In particular, in the syntax clitics are merged in argument or non-argument positions depending on their featural content and can undergo feature-driven movement. The morphological component can further rearrange the clitics based on their directionality preferences (proclitic or enclitic). Finally, if position with respect to a particular prosodic domain or boundary is relevant for the placement a clitic, the clitic may undergo further movement after Vocabulary Insertion.

Indirect object and possessive clitics are homophonous in the Balkan Slavic languages and Romanian, a type of syncretism which is well attested cross-linguistically (Szabolcsi 1994). In these languages, nominal-domain possessive clitics have the same morphophonological form as clausal-domain indirect object clitics across all possible combinations of person, number and gender values:

(5) *Possessive and indirect object clitic paradigms* (from Franks and King 2000)

	1SG	2SG	3SG	3SG.F	1PL	2PL	3PL	REFL
Bulgarian	mi	ti	mu	i	ni	vi	im	si
Macedonian	mi	ti	mu	i	ni	vi	im	si
Serbo-Croatian	mi	ti	mu	joj	nam	vam	im	si
Romanian	(î)mi	(î)ti	(î)i	(î)i	ne	v(i)	li	si

Such identity between the two paradigms could be the result of an underlying identity of abstract Case and ϕ-features. Alternatively, it can be a surface phenomenon resulting from accidental homophony or underspecification for Case features. Under the former scenario, there can be complete or partial identity of formal features between indirect object and possessive clitics as in (6) and (7) respectively. They can

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[2]Here, I reserve the term *Spell-Out* for the point where the derivation branches into PF and LF in line with Chomsky (2004). In other words, I take *Spell-Out* to be equivalent to the concept of *Transfer* introduced in Chomsky 2001 and not with linearization or the disappearance of hierarchical structure (which take place "later").

be underspecified and still be spelled out identically because the shared features are realized by a single exponent, as (7) shows. Crucially, under this hypothesis, all these clitics are dative in the syntax.

(6) Complete identity of formal features

    a.   *Vocabulary Item*:
        [1, sg, dative] ↔ /mi/

    b.   *Vocabulary Insertion*:
        indirect object clitic: [1, sg, dative] → /mi/
        possessive clitic: [1, sg, dative] → /mi/

(7) Partial identity of formal features

    a.   *Vocabulary Items*:
        [1, sg, accusative] ↔ /me/
        [1, sg] ↔ /mi/

    b.   *Vocabulary Insertion*:
        direct object clitic: [1, sg, accusative] → /me/
        indirect object clitic: [1, sg, dative] → /mi/
        possessive clitic: [1, sg, dative] → /mi/

Under the latter scenario where indirect object clitics are dative and possessive clitics are genitive (i.e. they have distinct abstract Case features), the surface identity results from accidental homophony or from underspecification as in (8) and (9) respectively. However, as Pancheva (2004) points out, accidental homophony is unlikely given the complete syncretism of both paradigms. Instead, under this view the effect can be better explained through underspecification for Case features.

(8) Accidental homophony

    a.   *Vocabulary Item*:
        [1, sg, dative] ↔ /mi/$_{Ind.Obj.}$
        [1, sg, genitive] ↔ /mi/$_{Poss.}$

    b.   *Vocabulary Insertion*:
        indirect object clitic: [1, sg, dative] → /mi/
        possessive clitic: [1, sg, genitive] → /mi/

(9) Underspecification

    a.   *Vocabulary Items*:
        [1, sg, accusative] ↔ /me/
        [1, sg] ↔ /mi/

    b.   *Vocabulary Insertion*:
        direct object clitic: [1, sg, accusative] → /me/
        indirect object clitic: [1, sg, dative] → /mi/
        possessive clitic: [1, sg, genitive] → /mi/

Relying on comparative data, Pancheva (2004) shows that this syncretism in the Balkan Slavic languages and Romanian is not just morphophonological but that indirect object and possessive clitics constitute identical feature bundles bearing dative case. Her main arguments follow.

Consider first an indirect piece of evidence. Serbo-Croatian does not exhibit dative/genitive case syncretism, i.e. there is a set of genitive clitics. Yet, possessive clitics, which are available only DP-externally, are unambiguously dative and not genitive. Thus, the fact that genitive clitics are prohibited as possessors both DP-internally and externally in the only Balkan language where we can independently

verify the distinct status of genitive and dative clitics, argues against possessive clitics being valued for genitive case in the syntax.

Consider next Old Church Slavonic—the earliest recorded South Slavic language, and the ancestor of modern Bulgarian, Macedonian and Serbo-Croatian—which had two distinct possessive structures. It allowed unambiguously dative clitic, non-clitic pronominal, and full-DP possessors within DPs as well as non-clitic genitive pronominal possessors within DPs. The historical data show that possessive clitics in the Slavic languages were dative in a period when a morphological distinction between dative and genitive exponents was still maintained. Positing that the abstract case of possessive clitics became genitive exactly when the phonological distinctions between the two paradigms disappeared (or as a result of their disappearance) is unmotivated. Overall, it then seems unlikely that the possessive clitics in the modern Balkan languages are valued genitive and are identical to the indirect object dative clitics because of morphophonological syncretism.

The distribution of possessive clitics is not limited to the DP in South Slavic and Romanian: they can surface in a DP-external position. The relevance of possessor raising here has to do with the fact that DP-external possessive clitics have the same distribution as indirect object clitics in all these languages. In addition, the"raised" possessive clitics also have the same prosodic/phonological behavior as clausal clitics. The conclusion is that in these languages, possessive clitics have the phonological, morphological, and syntactic properties of indirect object clitics and must therefore constitute the same feature bundles.

Consider next the behavior of non-clitic pronominal possessors and what it reveals about the abstract Case features of the possessive clitics. In the Balkan Slavic languages and Romanian, there is a special genitive position within DPs in which non-clitic possessors have to appear and which is associated with properties not shared by clitic possessors. In particular, non-clitic possessive pronouns can only appear pre-nominally and bear special "adjectival" inflection historically derived from Old Church Slavonic genitive forms. Post-nominally, all types of non-clitic possessors have to be introduced by a preposition instead.

(10) a. Ivan-ova-ta   kniga
          Ivan-ADJ-the book
          'Ivan's book'

      b. kniga-ta *(na) Ivan
          book-the to   Ivan

The different behavior of possessive clitics, which are always post-nominal and not introduced by a preposition, compared to non-clitic and full DP possessors can be accounted for as follows: pre-nominal DP-internal possessors are valued genitive in the course of the syntactic derivation while post-nominal possessors are not. Therefore, any postnominal possessors (including clitics) must be instances of dative arguments realized in the same manner that dative arguments in the clausal domain are realized, dative clitics or PPs (in the case of full DPs):

(11) knigata **mu**   na nego
      the.book 3SG.M.DAT to him
      'his book'

Finally, consider the fact that DPs in PPs and non-clitic pronominals can be doubled by possessive clitics in Bulgarian and Macedonian, as in (11). Pancheva's (2004) argument is that possessive PPs in the two languages are the morphological realization of dative case valued DP-internally and therefore, their cooccurrence with clitics (and their forming a chain with them) suggests that the clitics themselves are dative rather than genitive. In addition, clitic doubling with possessive clitics is shown in Pancheva 2004 to have the same cross-linguistic distribution as clitic doubling with indirect object clitics: possible in Macedonian and Bulgarian, but not in Serbo-Croatian. This is to be expected if the possessive and indirect object clitics are the same syntactic objects valued for dative case.

So far, this section has shown that possessive and indirect object clitics in Bulgarian are homophonous and that this syncretism is due to their underlying featural identity. In particular, both types of clitics are dative. This formal identity is particularly puzzling in light of their distinct placement patterns across the syntactic domains they are associated with.

2.2 Distinct Placement Patterns

2.2.1 Nominal Clitics

Nominal clitics in Bulgarian include DP-internal possessive clitics, which happen to be homophonous with indirect object clitics (Tomić 1996b; Schoorlemmer 1998; Caink 2000; Dimitrova-Vulchanova 2000; Franks and King 2000; Schick 2000; Embick and Noyer 2001; Stateva 2002; Schürcks and Wunderlich 2003:i.a.). Their distribution is exemplified below. They follow the noun (if it is the only element within a nominal phrase), the first nominal modifier, the numeral, quantifier, or demonstrative, if one is present:

(12) a. knigata **mu**
          the.book 3SG.M.DAT

      b. interesnata **mu** kniga
          the.interesting 3SG.M.DAT book

      c. xubavata **mu** interesna kniga
          the.nice 3SG.M.DAT interesting book

      d. mnogoto **mu** xubavi interesni knigi
          the.many 3SG.M.DAT nice interesting books

      e. trite **mu** xubavi interesni knigi
          the.three 3SG.M.DAT nice interesting books

      f. vsičkite **mu** tri xubavi interesni knigi
          the.all 3SG.M.DAT three nice interesting books

      g. tezi **mu** tri xubavi interesni knigi
          these 3SG.M.DAT three nice interesting books

Right-branching modifiers and coordinate constructions provide evidence that the possessive clitics follow the left-most head in nominal phrases (and not the left-most phrase). For example, if an adjective is modified by an adverb or a PP which follows it, the possessive clitic still encliticizes to the adjective and not to the whole AP:

(13) a. [blizkija **im** [do našta k əšta]] magazin
          the.close 3PL.DAT to the.our house store

          'their store (that is) close to our house'

      b. * [blizkija [do našta kəšta]] **im** magazin
          the.close to the.our house 3PL.DAT store

In addition, if two or more adjectives within a single DP are coordinated, the possessive clitic has to immediately follow the first conjunct, as in (14). In these examples, the possessive clitic cannot appear anywhere but on the left-most adjective and there can be only one instantiation of the possessive clitic in the whole DP.[3]

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[3]Chung (2003) uses similar facts about the behavior of Chamorro weak pronouns as one piece of evidence to argue for a prosodic account of their placement (2P within Phonological Phrases). Such an approach to the Bulgarian nominal possessive clitics is untenable, however, based on data discussed in section 5 and the data involving adverbials discussed in the appendix.

(14)   a.   xubavata **mi**   i   interesna kniga
             the.nice 1SG.DAT and interesting book

             'the nice and interesting book of mine'

       b.   xubavata **mi**,   interesna i   evtina kniga
             nice.the 1SG.DAT interesting and cheap book

             'the nice, interesting and cheap book of mine'

A potential complication is introduced by the fact that in the presence of what appear to be left-branching modifiers of adjectives the possessive clitics still follow the adjective (and not the left-most head which would be the modifier). These degree words and low adverbials seem to challenge the generalization that the possessive clitics follow the left-most head in nominal phrases. However, see the appendix for a treatment of these modifiers as invisible to the placement of clitics (in terms of Late Adjunction) under which they can easily be accommodated in the current analysis.

      To sum up, the descriptive generalization concerning the distribution of possessive clitics can now be stated as follows at a level of representation which contains information about precedence relations:

(15)   Generalization A:
       Possessive clitics appear in second position within DPs.

2.2.2 Clausal Clitics

The Bulgarian clausal clitics include verbal auxiliary clitics, the subjunctive marker *da*, the future marker *šte*, the negation marker *ne*, the yes/no interrogative clitic *li*, and the pronominal object clitics (Dimitrova-Vulchanova 1995; Dimitrova-Vulchanova and Hellan 1999; Tomić 1996a, 2000; Rivero 1997; Rudin 1997; Franks 1998, 2000; Franks and King 2000; Schick 2000; Bošković 2001, 2002). It is the pronominal dative clitics that are the focus of this paper. The other types of clitics exhibit distinct distributional and morphophonological behaviors from the pronominal clitics and will not be considered here. Table (16) contains the accusative and dative paradigms of the pronominal clitics.

(16)   Pronominal clitics in Bulgarian

	1SG	2SG	3SG.M/N	3SG.F	1PL	2PL	3PL	REFL
ACC	me	te	go	ja	ni	vi	gi	se
DAT	mi	ti	mu	i	ni	vi	im	si

      The pronominal object clitics form a cluster with rigid internal order: dative clitics always precede accusative clitics. Here, I will only be concerned with the external distribution of the clitic cluster and not with the syntax or morphotactics that determine the order of clitics internal to the cluster. While I explicitly concentrate on the properties of the indirect object (dative) clitics, everything that can be concluded about them extends to the accusative clitics, since they have an identical distribution (always right-adjacent to the dative clitics). The clitic cluster in Bulgarian is left-adjacent to the verb unless this leaves the clitics CP-initial, in which case the cluster encliticizes to the verb:

(17)   a.   Petko vinagi **mi**   **go**   dava.
             Petko always 1SG.DAT 3SG.M.ACC gives

             'Petko always gives it to me.'

       b.   * Petko vinagi dava **mi**   **go**.
              Petko always gives 1SG.DAT 3SG.M.ACC

c. * **Mi**   **go**   dade Petko.
     1SG.DAT 3SG.M.ACC gave Petko
     'Petko gave it to me.'

d. Dade **mi**   **go**   Petko.
     gave   1SG.DAT 3SG.M.ACC Petko

This generalization holds in both root and embedded clauses. In finite complement clauses introduced by the complementizer *če* 'that', the subjunctive marker *da* (there is no non-finite complementation in Bulgarian), or a wh-word, the clitics have to be left-adjacent to the embedded verb. Note that they can never be CP-initial in complements because either a complementizer or a wh-element is always present:

(18)   a.   Marija znae [če **mi**   **go**   dade Petko].
          Maria knows that 1SG.DAT 3SG.M.ACC gave Petko
          'Maria knows that Petko gave it to me.'

       b.   Marija iska   [da **mi**   **go**   dade].
          Maria wants to   1SG.DAT 3SG.M.ACC gave
          'Maria wants to give it to me.'

       c.   Marija ne   znae [koi **mi**   **go**   dade].
          Maria knows that who 1SG.DAT 3SG.M.ACC gave
          'Maria doesn't know who gave it to me.'

It should be noted that finiteness does not play a role in the placement of clitics in Bulgarian (*cf.* Macedonian, Spanish, Italian, Greek, etc. where clitics always follow non-finite verbs and precede finite ones).

      This state of affairs is descriptively equivalent to the Tobler-Mussafia effect first observed in medieval Old Romance (Tobler 1875 and Mussafia 1888). Thus, within the typology of Slavic clitics, Bulgarian patterns with Macedonian and not Czech, Serbo-Croatian, Slovak, or Slovenian, in that clausal clitics are verb-adjacent rather than 2P (Wackernagel clitics). That Bulgarian clausal clitics are not 2P elements is demonstrated by the following example:

(19)   a.   [Tozi poet] **mi**   napisa stixotvorenie.
          this   poet 1SG.DAT wrote poem
          'This poet wrote me a poem.'

       b. * [Tozi **mi**   poet] napisa stixotvorenie.
          this   1SG.DAT poet wrote poem

Consider in addition (20a), where the clitics immediately follow the verb because it is in CP-initial position. However, when the subject and an adverbial are preposed, as in (20b), the clitics immediately precede the verb and, in particular, cannot appear further to the left (20c). This shows that if there is enough material in various sentence peripheral positions, the clitics will not occupy the second position but will remain adjacent to the verb.

(20)   a.   Dade **mu**   bonboni Mimi.
          gave 3SG.M.DAT candy   Mimi
          'Mimi gave him candy.'

       b.   Mimi vinagi **mu**   dava bonboni.
          Mimi always 3SG.M.DAT gives candy
          'Mimi always gives him candy.'

       c. * Mimi **mu**   vinagi dava bonboni.
          Mimi 3SG.M.DAT always gives candy

Since the distribution of the clitic cluster depends on the position of the verb, it is reasonable to ask what happens in sentences that contain more than one verbal element such as a non-clitic auxiliary or an additional verb.[4] First, in the presence of a non-clitic auxiliary, it is that auxiliary that the pronominal clitics need to be left-adjacent to and not the verb, as the contrast between (21a) and (21b) shows. The same preference is also observed when the relative order between the auxiliary and the verb is reversed in verb-fronting constructions such as (21c). Finally, when the auxiliary is initial, the clitics immediately follow it and do not immediately precede the verb, as in (21d).

(21)   a.   Petko **mi**   **go**   beše dal.
            Petko 1SG.DAT 3SG.M.ACC had given
            'Petko had given it to me.'

       b.   * Petko beše **mi**   **go**   dal.
            Petko had   1SG.DAT 3SG.M.ACC given

       c.   Dal **mi**   **go**   beše Petko.
            given 1SG.DAT 3SG.M.ACC had Petko

       d.   Beše **mi**   vsičko   dal   Petko.
            had   1SG.DAT everything given Petko
            'Petko had given me everything.'

       e.   * Beše vsičko   **mi**   dal   Petko.
            had   everything 1SG.DAT given Petko

Second, having more than one verb in a clause can also be the result of VP coordination. However, this construction is not informative for the present purposes because each conjunct is independently required to contain a clitic cluster even in cases of identity. Clitic placement then revolves around the verb in each of the conjuncts according to the familiar constraints.

To sum up, the descriptive generalization that emerges from the data discussed above can be stated as follows:

(22)   Generalization B:
       Clausal clitics are left-adjacent to the highest verb in the clause unless this leaves them in CP-initial position, in which case they are right-adjacent to the highest verb.

2.3 Summary

Clitics are assumed to be lexically specified for syntactic features (such as Case), morphological features (directionality of attachment: proclitic vs. enclitic), and phonological features which are relevant for building prosodic domains (Selkirk 1995). This section was devoted to showing that indirect object and possessive clitics are formal objects which constitute identical feature bundles with dative case features. However, we have arrived at two different generalizations that describe the placement of these two types of clitics within DPs and CPs, repeated here:

(23)   Generalization A:
       Possessive clitics appear in second position within DPs.

(24)   Generalization B:
       Clausal clitics are left-adjacent to the highest verb in the clause unless this leaves them in CP-initial position, in which case they are right-adjacent to the highest verb.

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[4]It is also interesting to note that in Bulgarian, the main predicate can be not only verbal but also participial, adjectival, or nominal. These types of predicates behave like verbal ones in their interaction with pronominal clitics (see also Franks and King 2000:65) and, presumably, it must be possible to apply the present approach to them as well. For reasons of space this task must be the focus of future research.

If these two generalizations are correct, the difference in distribution cannot be derived from the lexical specification of the clitics since, as Pancheva 2004 has demonstrated, they have the same lexical specification. This state of affairs is paradoxical only under the assumption that identical formal objects should behave the same way in different syntactic domains which, I argue, should be adopted. Then in cases where identical syntactic objects seem not to behave in the same way in all syntactic domains they can be associated with, we need to locate the difference in some property of the syntactic domains themselves. Below, I identify what this property is and how it interacts with the post-syntactic behavior of clitics to yield the observed placement patterns.

3 The Syntax of Cliticization

The post-syntactic behavior of clitics depends on their behavior in narrow syntax to the extent that any post-syntactic operations that apply to the clitics refer to the output of syntax. It is necessary then, to outline the concrete assumptions about what the structures that narrow syntax produces look like, with a particular focus on clitics. Due to the larger volume of work on clausal clitics in Bulgarian, I first turn to a discussion of their behavior and then use it as the basis for the discussion of the behavior of nominal clitics.

Following Rudin (1997) and Pancheva (2005), I assume that verb-adjacent clitics are not arguments of the verb and are base generated VP-externally. The arguments associated with them appear in the usual VP-internal theta positions. These arguments can be overt (full DPs or PPs), which gives rise to clitic doubling, or null (silent pro):

(25) a. Ivan **ja**$_i$ vidja pro$_i$.
          Ivan 3SG.F.ACC saw

          'Ivan saw her.'

      b. Ivan **ja**$_i$ vidja učitelkata$_i$.
          Ivan 3SG.F.ACC saw   the.teacher

          'Ivan saw the teacher.'

(26) a. Az **mu**$_j$ **ja**$_i$ dadah pro$_i$ pro$_j$.
          I   3SG.M.DAT 3SG.F.ACC gave

          'I gave it to him.'

      b. Az **mu**$_j$ **ja**$_i$ dadah knigata$_i$ na Ivan$_j$.
          I   3SG.M.DAT 3SG.F.ACC gave   the.book to Ivan

          'I gave the book to Ivan.'

I follow Tomić (1996a), Rudin (1997), Franks and King (2000), and Pancheva (2004) in treating Bulgarian clausal clitics as heads. In particular, they are a bundle of case and ϕ-features merged as adjuncts to the head of a functional projection in the extended projection of the verb that values dative case. This is essentially a slightly modified version of Borer's (1986), Jaeggli's (1986), and Sportiche's (1996) analysis of pre-verbal clitics in Romance, in which the clitic is base-generated as an adjunct to the verb and is associated with a null pronominal in argument position.

The clitic-verb adjacency in Bulgarian discussed above should be encoded syntactically because the clitics move with the verb: in questions, they undergo movement to C^0 together; in imperatives, they undergo V-to-C movement together as well (assuming along with Han 2001 that imperatives involve V-to-C movement):

(27)   yes/no question with the question particle *li* in C^0 and V-to-C movement:

    a.   Maria **mu**   dade knigata
        Maria 3SG.M.DAT gave the.book
        'Maria gave him the book.'

    b.   Dade$_j$ li **mu**   Maria t_j knigata?
        gave   Q 3SG.M.DAT Maria the.book
        'Did Maria give him the book?'

    c.   * Dade$_j$ li Maria **mu** t_j knigata?
        gave   Q Maria 3SG.M.DAT the.book
        'Did Maria give him the book?'

(28)   wh-question with wh-movement to Spec,CP and V-to-C movement:

    a.   Maria **mu**   dade knigata.
        Maria 3SG.M.DAT gave the.book
        'Maria gave him the book.'

    b.   Kakvo$_i$ **mu**   dade$_j$ Maria t_j t_i?
        What   3SG.M.DAT gave Maria
        'What did Maria give him?'

    c.   * Kakvo dade Maria **mu**?
        What   gave Maria 3SG.M.DAT
        'What did Maria give him?'

(29)   positive and negative imperatives with V-to-C movement:

    a.   Bərzo **mi**   **go**   donesi!
        quickly 1SG.DAT 3SG.M.ACC bring
        'Bring it to me quickly!'

    b.   Ne **mu**   **go**   davai!
        not 3SG.DAT 3SG.M.ACC give
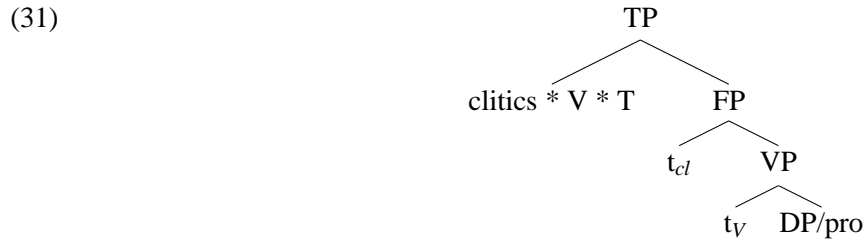   'Don't give it to him!'

In addition, clitics are inseparable from the verb by any other syntactic constituents. The following examples show that nothing can intervene between the clitics and verb:

(30)   a.   Včera   Mimi **mu**   **go**   dade .
        yesterday Mimi 3SG.M.DAT 3SG.M.ACC gave
        Mimi gave it to him yesterday.

    b.   * Mimi **mu**   **go**   včera   dade.
        Mimi 3SG.M.DAT 3SG.M.ACC yesterday gave

    c.   * Včera   **mu**   **go**   Mimi dade.
        yesterday 3SG.M.DAT 3SG.M.ACC Mimi gave

The proposal here, in agreement with Pancheva (2005), is that the verb and the clitics form a complex head prior to linearization of syntactic terminals and the data above show that this complex head must be built by head movement in the syntax.[5]

---

[5]Some speakers allow certain adverbs to intervene between the clitics and the two verbal heads in constructions involving compound tenses (but see the appendix on the Late Adjunction of adverbs). While this fact slightly complicates the analysis of

The remaining question is whether that complex head is (i) the head containing the clitic in its base-generated position, (ii) the highest functional head containing a clitic, or (iii) T^0. All three answers have been proposed in the literature. Here, along with Franks (2008) and others, I assume that the verb and the clitics move to the highest verbal projection available and form a complex head with it. In the clausal domain this is T^0. The assumptions outlined above are summarized in (31) where FP stands for the inflectional layer available above VP which contains the adjunction site of the clitics.[6]

(31)

```
                    TP
                   /  \
          clitics * V * T   FP
                          /  \
                       t_cl    VP
                              /  \
                            t_V   DP/pro
```

Turning to nominal phrases, I assume that in DPs the possessive clitics do not originate in argument positions either. Rather, they are Case and ϕ-feature bundles that are merged as adjuncts to a functional head that values dative case, this time within DP. They are again associated with a null pronominal or an overt PP in θ-position of a null possessive predicate with matching ϕ-features and unvalued case.

(32) a. knigata **mu**   pro_i
          the.book 3SG.M.DAT
          'his book'

      b. knigata **mu**   [na Ivan]_i
          the.book 3SG.M.DAT to   Ivan
          'Ivan's book'

In DPs the clitics adjoin to a definite D^0 head (Tomić 1996b; Embick and Noyer 2001, *i.a.*) but why they do so is less clear (on the attraction of clitics by definite determiners, see Cardinaletti 1998; Schoorlemmer 1998; Embick and Noyer 2001). A reason to believe that possessive clitics move as high as D^0 is their distribution when they cooccur with demonstratives. In those cases, the possessive clitic has to follow the demonstrative which occupies Spec,DP (potentially, after movement; see Giusti 1997):
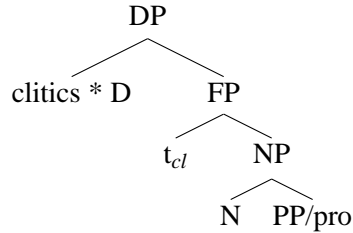
(33) a. tazi **mu**   xubava interesna knigi
          this 3SG.M.DAT nice   interesting book
          'this nice interesting book of his'

      b. onezi **mi**   tri   knigi
          those 1SG.DAT three books
          'those three books of mine'

Assuming, in addition, that the clitic position is bounded from below by adjoined adjectives or numeral (or other kinds of phrases), it must be the case that the clitic is in D^0. This yields the following structure (again, FP below stands for the inflectional layer available above NP):

---

the syntactic behavior of clitics, it is inconsequential for the NONINITIALITY-based analysis of their post-syntactic behavior since it only relies on the resulting linear order of the clitics within the Spell-Out domain. See Franks 2008 for a recent account of the Bulgarian verbal complex that is consistent with the approach defended here. For the present purposes I maintain the simplifying assumption that the pronominal clitics and the verb form a complex head.

[6]Note that when precedence relations are introduced in the post-syntactic component, the clitics will get linearized to the left of the head they are adjoined to due to their lexical specification.

(34)

```
                              DP
                          ╱        ╲
                  clitics * D        FP
                                  ╱      ╲
                               t_cl        NP
                                        ╱     ╲
                                       N      PP/pro
```

       To sum up, dative clitics in clauses and nominal phrases are base-generated as adjuncts in the extended projection of the respective lexical heads and are associated with a (potentially null) argument in the lower θ-position. The clitics move to the head that encodes reference in the nominal and temporal domain: D^0 and T^0 respectively. These assumptions about the syntactic behavior of clitics are fairly standard in the literature on South Slavic cliticization, and Bulgarian in particular. However, it is important to keep in mind that here they are made just for concreteness and a different set of reasonable assumptions would likely not influence an account of their post-syntactic behavior as described below.

4 Clitic Placement across Syntactic Domains

In this section I present evidence in support of the claim that apparent clitic placement differences across the syntactic domains that the clitics can be associated with result from the interaction between NONINITIALITY (see (35); *cf.* Franks and Bošković 2001 and Anderson 2005) and the (un)availability of pre-clitic positions within the corresponding Spell-Out domains. This proposal denies that different mechanisms are responsible for the different distribution of clitics in DPs and CPs; instead, the clitic orders possible in DP are only a subset of the orders possible in CP due to the particular structural property identified above and discussed throughout this section.[7]

(35) NONINITIALITY

     Dative clitics cannot be initial within a Spell-Out domain.

If, at the output of narrow syntax (i.e. the linearized structures (31) and (34)), dative clitics are initial within a Spell-Out domain, they undergo PF readjustment which inverts them with the element to their right. I suggest that the clitic cluster can only be inverted with a *morphosyntactic word* (the highest segment of an X^0 not contained in another X^0; see Embick and Noyer 2001). Note that linearization here refers to the introduction of precedence relations and that PF readjustment must apply at a level of representation which contains information about adjacency and precedence relations:[8]

---

[7]There is an alternative approach that might initially seem plausible: nominal and clausal clitics are both 2P but the domain that counts for second position in the clause is *v*P (Kahnemuyipour and Megerdoomian 2008, 2010). While it is tempting to try to reduce verb-adjacent clitics to 2P clitics within *v*P (which could otherwise be a fruitful approach for other languages), in Bulgarian this approach runs into trouble accounting for orders where the clitics immediately follow constituents which are undoubtedly outside *v*P (e.g. focus, topic).

[8]Note that, as currently stated, the Clitic Metathesis operation proposed here can potentially be identified with the Local Dislocation operation (Embick and Noyer 2001), which works in terms of adjacency as well, and applies at or after Vocabulary Insertion (and thus, after linearization). However, an argument can be constructed for treating Clitic Metathesis as a distinct operation applying "earlier" in the derivation than Vocabulary Insertion (and thus, Local Dislocation). Consider the possibility of extending the present analysis to account for not only dative clitics but also the whole clitic cluster which happens to contain a dative clitic. Now note that in nominal phrases, this cluster includes the definite marker which is a D^0 but surfaces as a suffix on the left-most head immediately preceding the dative clitic (see, for example, (12); see also Caink 2000 arguing for the existence of a clitic cluster in nominals). Then consider the fact that allomorph selection of the definite marker depends on the phonological form (specifically, the final segment) of its host, the left-most head in the nominal phrase (see Harizanov and Gribanova, this volume). Therefore, Clitic Metathesis needs to displace the definite marker to create the environment for allomorph selection (which happens at Vocabulary Insertion). This means that the Clitic Metathesis operation must precede the point at which allomorph selection happens, i.e. Vocabulary Insertion. Since this is the point at or after which Local Dislocation takes place, Clitic Metathesis must also precede Local Dislocation. An interesting consequence of this conclusion is the requirement that precedence relations be introduced before phonological material is (for discussion of this possibility see Embick 2007:fn.14). The timing of the Clitic Metathesis operation proposed here is characteristic of the Enclitic Metathesis operation proposed by Arregi and Nevins (2008) and Nevins (2009) for

(36) Clitic Metathesis

    a. applies after linearization of syntactic structure

    b. if the clitics are initial within a Spell-Out domain

    c. to invert them with the element to their right.

4.1 The Analysis

The details of the analysis as well as an exploration of its predictions are presented next. The focus here is on the interaction of the NONINITIALITY constraint with the positions available in the left peripheries of nominal phrases and clauses.

4.1.1 Nominals

At the output of narrow syntax, clitics may be initial within the DP Spell-Out domain and will undergo Clitic Metathesis:

(37) a. $[_{DP}$ **clitics**+D [[modifier] $[_{NP}$ noun]]]   *(Syntax)*

      b. [**clitics** modifier noun]   *(Spell-Out/Linearization)*

      c. __ modifier **clitics** noun   *(Clitic Metathesis)*

(38) a. Pročetox $[_{DP}$ novata **mu** kniga]
        read   the.new 3SG.M.DAT book

        'I read his new book.'

      b. * Pročetox $[_{DP}$ **mu** novata kniga]
        read   3SG.M.DAT the.new book

Alternatively, the clitics may follow DP-internal demonstratives, which are assumed to occupy Spec,DP following Giusti 1997, and will not undergo Clitic Metathesis:

(39) a. $[_{DP}$ dem **clitics**+D [[modifier] $[_{NP}$ noun]]]   *(Syntax)*

      b. [dem **clitics** modifier noun]   *(Spell-Out/Linearization)*

      c. dem **clitics** modifier noun   *(No Clitic Metathesis)*

(40) a. Pročetox $[_{DP}$ tazi **mu** nova kniga]
        read   this 3SG.M.DAT new book

        'I read this new book of his.'

      b. * Pročetox $[_{DP}$ tazi nova **mu** kniga]
        read   this new 3SG.M.DAT book

Note that a necessary assumption for this approach to succeed is that edge material (such as specifiers) is part of the Spell-Out domain. This runs counter to the proposal put forward by Chomsky (2000, 2001) where a Spell-Out domain is the complement to a phase head:

(41) Phase ≠ Spell-Out Domain

    a. Phase: XP where X^0 is a phase head

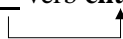   b. Spell-Out Domain: the complement of X^0

---

the Basque auxiliary. Extending the present analysis to the whole clitic cluster in nominal phrases and clauses in the way suggested above is left for future work.

Instead, the present account requires Spell-Out domains coincide completely with phases. This interpretation of the two concepts has been defended by Fox and Pesetsky (2005), Ishihara (2007), and Svenonius (2004), among others, on the basis of a wide variety of empirical data in the context of disparate theoretical issues. This is the assumption that I adopt here:

(42)   Phase = Spell-Out Domain
      a. Phase: XP where X^0 is a phase head
      b. Spell-Out Domain: XP where X^0 is a phase head

4.1.2 Clauses

Turning to the clausal domain, at the output of narrow syntax, clitics may be initial within the CP Spell-Out domain and will undergo Clitic Metathesis:

(43)   a. $[_{CP}\ \emptyset\ [_{TP}$ **clitics**+V+T $[_{VP}\ t_V$ DP]]]   (*Syntax*)
        b.   [**clitics** verb noun]   (*Spell-Out/Linearization*)
        c.   __ verb **clitics** noun   (*Clitic Metathesis*)

(44)   a.   Dade **mi**   **go**   Petko.
           gave 1SG.DAT 3SG.M.ACC Petko
           'Petko gave it to me.'
        b.   * **Mi**   **go**   dade Petko.
           1SG.DAT 3SG.M.ACC gave Petko

Alternatively, the clitics may follow CP-internal material (complementizers, focus, wh-elements, topics) and will not undergo Clitic Metathesis. First, consider the placement of focused constituents in root and embedded clauses. Their interaction with the distribution of complementizers and wh-elements, and in particular, the fact that they always follow complementizers indicates that focused constituents occupy positions internal to the CP Spell-Out domain:

(45)   Focus in CP
        a.   (Samo) **knigata** pročetox __ .
            only   the.book read
            'I read (only) the book$_{FOC}$.'
        b.   Mislja, $[_{CP}$ če **knigata** pročetox __].
            think   that the.book read
            'I think that I read the book$_{FOC}$.'
        c.   Ne pomnja $[_{CP}$ **na Ivan** kakvo podarix __].
            not recall   to Ivan what gave
            'I don't remember what I gave to Ivan$_{FOC}$.'

       Second, consider topicalization (equivalent to Clitic Left Dislocation; see Cinque 1990) which differs from focus in that the fronted constituent is doubled by a clitic. Note that clitic doubling is obligatory since the absence of a doubling clitic results in a focus interpretation (and thus, only definite DPs can be topics). Like focused constituents, topics follow complementizers, (46b), and precede wh-elements, (46c). Topics also precede any focused constituents, as (46d) shows.

(46) Topicalization (Clitic Left Dislocation) in CP

    a.   **Knigata ja**   pročetox __ .
        the.book 3SG.F.ACC read

        'I read the book$_{TOP}$.'

    b.   Mislja, [$_{CP}$ če **knigata ja**   pročetoxa __].
        think   that the.book 3SG.F.ACC read

        'I think that they read the book$_{TOP}$.'

    c.   Ne pomnja [$_{CP}$ **na Ivan** kakvo **mu**   podarix __].
        not recall   to Ivan what 3SG.M.DAT gave

        'I don't remember what I gave to Ivan$_{TOP}$ as a gift.'

    d.   Ne pomnja [$_{CP}$ **na Ivan** za koleda kakvo **mu**   podarix __].
        not recall   to Ivan for xmas what 3SG.M.DAT gave

        'I don't remember what I gave to Ivan$_{TOP}$ for Christmas$_{FOC}$.'

        Evidence from anaphor binding, island sensitivity and case connectivity suggests that focus and topicalization should be analyzed as movement within the CP Spell-Out domain (see Krapova 2004 for similar arguments). Given that CP is the Spell-Out domain that contains the clitic cluster, the prediction that the present account makes is that all material contained in the Spell-Out domain can satisfy the NON-INITIALITY requirement of the clitics. Since focused and topicalized constituents are internal to the CP Spell-Out domain, they must be able to satisfy NONINITIALITY and the following examples confirm this prediction (wh-elements follow the focused constituent (47a) but have been omitted). All examples would be ungrammatical if the clitics appear anywhere else:

(47)   a.   [$_{CP}$ C [TopP [FocP [$_{TP}$ **clitics**+V+T [$_{VP}$ verb DP]]]]]   *(Syntax)*

      b.   [comp topic focus **clitics** verb noun]   *(Spell-Out/Linearization)*

      c.   comp topic focus **clitics** verb noun   *(No Clitic Metathesis)*

(48) Focus in CP

    a.   (Samo) **knigata mu**   pročetox __ .
        only   the.book 3SG.M.DAT read

        'I read (only) the book$_{FOC}$ to him.'

    b. * (Samo) **knigata** pročetox **mu**   __ .
        only   the.book read   3SG.M.DAT

(49) Topicalization in CP

    a.   **Knigata mu**   **ja**   pročetox __ .
        the.book 3SG.M.DAT 3SG.F.ACC read

        'I read the book to him.'

    b. * **Knigata** pročetox **mu**   **ja**   __ .
        the.book read   3SG.M.DAT 3SG.F.ACC

4.2 Further Evidence

There exist constituents which are associated with a given Spell-Out domain but occupy a (derived) position external to that Spell-Out domain. The constructions that involve such constituents present a useful testing ground for the current proposal because it makes the prediction that such constituents will be irrelevant for the placement of clitics.

4.2.1 Nominals

Nominal phrases tolerate focus movement and topicalization as well, but here it is suggested that they target a position external to the Spell-Out domain defined by DP. To begin with, non-clitic post-nominal PP possessors can appear pre-nominally with a focus interpretation, as in (50b). The PP can be fronted in the clausal focus position as well, as (50c) shows.

(50)   Focus in DP

    a.   Polzvax [$_{DP}$ čaša **na Ivan**].
        used   cup to Ivan

        'I used Ivan's cup.'

    b.   Polzvax **na Ivan** čaša __ .
        used   to Ivan cup

        'I used Ivan's$_{FOC}$ cup.'

    c.   **Na Ivan** polzvax [$_{DP}$ čaša __].
        to Ivan used   cup

        'I used Ivan's$_{FOC}$ cup.'

While (50c) involves movement to the very front of the root clause (non-clitic possessor raising), note that in (50b) it is not clear whether the focused constituent occupies a position internal to DP or has been scrambled out of it. While I leave investigation into the exact nature of this position for future work, here I claim that it is external to the DP Spell-Out domain. One way to approach this issue is by exploring the interaction of focus movement with the presence of demonstratives. The following data show that they do not cooccur and thus, demonstratives must block focus movement:

(51)   a.   Polzvax [$_{DP}$ tazi čaša **na Ivan**].
        used   this cup to Ivan

        'I used this cup of Ivan.'

    b. * Polzvax **na Ivan** [$_{DP}$ tazi čaša __].
        used   to Ivan   this cup

        'I used this cup of Ivan$_{FOC}$.'

    c. * **Na Ivan** polzvax [$_{DP}$ tazi čaša __].
        to Ivan used   this cup

        'I used this cup of Ivan$_{FOC}$.'

Since demonstratives in the Bulgarian DP occupy Spec,DP (see Giusti 1997) and block focus movement, Spec,DP serves as an escape hatch for movement out of the DP-phase. We know that focus movement targets a position outside the DP (and not Spec,DP) because the demonstrative itself can move there as indicated by the contrastive focus interpretation it receives and the prosodic characteristics of (52b).

(52)   a.   Pročetox [$_{DP}$ **tazi mu** nova kniga]
        read   this 3SG.M.DAT new book

        'I read this new book of his.'

    b.   Pročetox **tazi** [$_{DP}$ __ novata **mu** kniga]
        read   this   the.new 3SG.M.DAT book

        'I read this$_{FOC}$ new book of his.'

    If a clitic is present in the above examples of focus, the fronted constituent receives a topic interpretation instead, just like in the clausal domain:
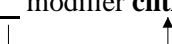
(53) Topicalization in DP

    a.   Pročetox [$_{DP}$ knigata **mu** **na Ivan**].
        read   the.book 3SG.M.DAT to Ivan

        'I read Ivan's book.'

    b.   Pročetox **na Ivan** [$_{DP}$ knigata **mu** __].
        read   to Ivan   the.book 3SG.M.DAT

        'I read Ivan's book$_{TOP}$.'

    c.   **Na Ivan** pročetox [$_{DP}$ knigata **mu** __].
        to Ivan read   the.book 3SG.M.DAT

        'I read Ivan's book$_{TOP}$.'

Like focus movement, topicalization is blocked by demonstratives as well:

(54) a.   Pročetox [$_{DP}$ tazi **mu** kniga **na Ivan**].
        read   this 3SG.M.DAT book to Ivan

        'I read this book of Ivan.'

    b.   * Pročetox **na Ivan** [$_{DP}$ tazi **mu** kniga __].
        read   to Ivan   this 3SG.M.DAT book

    c.   * **Na Ivan** pročetox [$_{DP}$ tazi **mu** kniga __].
        of Ivan read   this 3SG.M.DAT book

Therefore, Spec,DP serves as an escape hatch for focus movement and topicalization which target positions outside the DP.[9] This is the consensus for Modern Greek and Hungarian (Horrocks and Stavrou 1987, Szabolcsi 1994, Haegeman 2004); see also Dimitrova-Vulchanova and Giusti 1998 on Bulgarian. The present considerations then argue for a syntactic structure as in (55a). Given that DP is the Spell-Out domain that contains the clitic cluster, the current analysis (coupled with this structure) makes the correct prediction that topics and focus cannot satisfy NONINITIALITY while demonstratives can, being the only constituents internal to the Spell-Out domain that also precede the clitics immediately after linearization:

(55) a.   TopP/FocP [$_{DP}$ **clitics**+D [[modifier] [$_{NP}$ noun]]]   (*Syntax*)

    b.   topic/focus [**clitics** modifier noun]   (*Spell-Out/Linearization*)

    c.   __ modifier **clitics** noun   (*Clitic Metathesis*)

(56) Topicalization

    a.   Pročetox **na Ivan** [$_{DP}$ knigata **mu** __].
        read   to Ivan   the.book 3SG.M.DAT

        'I read Ivan's$_{TOP}$ book.'

    b.   * Pročetox **na Ivan** [$_{DP}$ **mu** knigata __].
        read   to Ivan   3SG.M.DAT the.book

        'I read Ivan's$_{TOP}$ book.'

---

[9]Note that focus movement and topicalization target different positions as the grammaticality of their cooccurrence suggests:

(i)   na Ivan za voijnata knigata mu
        to Ivan about the.war book.the 3SG.M.DAT

    'Ivan's$_{TOP}$ book about the war$_{FOC}$'

4.2.2 Clauses

In the clausal domain, a construction which involves a fronted constituent in a position external to a Spell-Out domain is Hanging Topic Left Dislocation (Riemsdijk and Zwarts 1997:i.a.). Hanging Topic Left Dislocation (HTLD) is similar to topicalization in that it requires clitic doubling. However, in HTLD constructions it is not the hanging topic that gets doubled but the argument of the verb associated with the clitic. Evidence that the hanging topic is not this argument comes from the fact that a tonic pronoun can show up as the argument doubled by the clitic. This full pronoun may occur, giving rise to clitic doubling, or not. These facts suggest a non-movement analysis of HTLD, with the hanging topic base generated CP-externally. Additional evidence comes from the absence of case connectivity, island insensitivity and the fact that HTLD is a root phenomenon.

(57)   Hanging Topic Left Dislocation (HTLD)

    a.   (kolkoto do) knigata, az **ja**   pročetox (**neja**).
        (as   for) the.book I 3SG.F.ACC read   it
        '(As for) the book, I read it.'

    b.   (na) Ivan, az **mu**   dadox knigata (**na nego**).
        to Ivan I 3SG.M.DAT gave the.book to him
        '(As for) Ivan, I gave him the book.'

HTLD interacts with focus and topicalization as illustrated in (58). The hanging topic precedes and is separated by an intonational break from the clause in which any topicalized and focused constituents appear in this (expected) order:

(58)   Na Ivan$_i$, knigata$_j$ Marija **mu**$_i$ **ja**$_j$ dade (**na nego**$_i$).
     to Ivan the.book Maria 3SG.M.DAT 3SG.F.ACC gave to him
     '(As for) Ivan, Maria$_{FOC}$ gave the book$_{TOP}$ to him.'

These considerations lead me to posit the clause structure in (59a) for Bulgarian. Given that CP is the Spell-Out domain that contains the clitic cluster, the prediction that the present account makes (coupled with this structure) is that hanging topics cannot satisfy NONINITIALITY while all material contained in the Spell-Out domain can which is, in fact, the case. The following examples would be ungrammatical if the clitics appeared anywhere else:

(59)   a.   hanging-topic [$_{CP}$ [$_{TP}$ **clitics**+V+T [$_{VP}$ t_V DP]]]   (*Syntax*)
    b.   hanging-topic [**clitics** verb noun]   (*Spell-Out/Linearization*)
    c.   __ verb **clitics** noun   (*Clitic Metathesis*)

(60)   HTLD

    a.   Knigata, dadoh **mu**   **ja**   na Ivan.
        the.book gave   3SG.M.DAT 3SG.F.ACC to Ivan
        '(As for) the book, I gave it to him.'

    b.   * Knigata, **mu**   **ja**   dadoh na Ivan.
        the.book 3SG.M.DAT 3SG.F.ACC gave to Ivan

4.2.3 Summary

To sum up, in narrow syntax dative clitics target the heads that encode reference in the temporal and the nominal domain they occur in. A condition which prevents them from being initial within a Spell-Out

domain forces the clitic cluster to undergo a PF readjustment operation. The reason why the clitics appear to be verb-adjacent and non-initial within clauses but 2P within nominals is that the head to which they adjoin in clauses (T^0) is not a phase head, while the head they adjoin to in nominals (D^0) is. This difference then gives rise to the observed state of affairs (summed up below) where CPs accommodate pre-clitic material internal to the Spell-Out domain.

(61) Structure of clauses and nominals

[HT]   [$_{CP}$ C   [TopP   [FocP   [$_{TP}$ **clitics**+V+T   [$_{VP}$]]]]]

[Top/Foc]   [$_{DP}$ **clitics**+D   [$_{NP}$]]

4.3 Adverbial Participles

Support for the current analysis comes from a previously undocumented parallel in clitic behavior in DPs and tenseless adverbial participles (also referred to as gerunds or verbal adverbs). Here, the NONINITIAL-ITY approach to explaining the distribution of clitics in clauses and nominal phrases is extended to such adverbial participles. These are free adjunct constructions (Stump 1985) as opposed to nominative absolute constructions and augmented absolute constructions:

(62) [Trəgvaijki ot   Plovdiv sutrinta],   Ivan pristigna v Sofija po objad.
    leaving   from Plovdiv in.the.morning, Ivan arrived   in Sofia at noon

    'Leaving Plovdiv in the morning, Ivan reached Sofia at noon.'

They feature unsaturated or obligatory control. Clitics in these adjuncts follow the participle which is always the initial element within the adjunct (note the parallelism with 2P distribution in DPs):

(63) a.   Četejki **mu**   knigata, Marija zaspa.
         reading 3SG.M.DAT the.book Maria fell.asleep

         'Reading the book to him, Maria fell asleep.'

    b.   Izpraštajki **mu**   parite,   Marija pomogna na Ivan.
         sending   3SG.M.DAT the.money, Maria helped   to Ivan

         'Sending him the money, Maria helped Ivan.'

Adverbial participles are subjectless adjunct structures which lack the articulated left periphery of full CPs. In assuming that adverbial participles display an impoverished structure compared to that of finite clauses I follow Babby and Franks (1998):

(64) Structure of adverbial participles

    [$_{TP}$ **clitics**+V+T [$_{VP}$ t_V DP]]

As a result of the structural properties of adverbial participles, the clitics end up in initial position within the adjunct at the output of narrow syntax:

(65) Spell-Out of adverbial participles

    [**clitics** verb noun]

NONINITIALITY requires the clitics to move to the right of the participle assuming that adverbial participles, being adjuncts, are Spell-Out domains:

(66) Clitic Metathesis in adverbial participles

    ___ verb **clitics** noun

Note that, given the derivation outlined above, the parallelism between adverbial participles and DPs is predicted. The possibility of successfully extending the present analysis to all syntactic domains in which dative clitics appear constitutes an argument for its correctness and emphasizes its utility in unifying clitic behavior.

5 The Nature of NONINITIALITY

There have been various attempts to capture the Tobler-Mussafia effects in the behavior of the Bulgarian clausal clitics. The main question that all approaches have to face is what the domain is within which clitics cannot be initial. The domain relevant for non-initiality is usually equated with the intonational phrase and the utterance. Such prosodic approaches assume different "repairs" of potential non-initiality violations, depending on the framework of implementation. In an Optimality Theoretic framework, the effect can be modeled as the interaction of three basic constraints (see Legendre 2000 for an explicit proposal; *cf.* Anderson 2005). Roughly, the interaction can be summarized as follows: a constraint against initiality within the appropriate domain is ranked higher than an alignment constraint which places the clitic cluster to the left of the verb; these two constraints are in turn ranked higher than an alignment constraint which places the clitic cluster to the right of the verb.

(67)   NONINITIAL ≫ ALIGN-L ≫ ALIGN-R

Another approach has been to suggest that the clitics undergo Prosodic Inversion (Halpern 1992/1995) which inverts them with the prosodic word to their right (which always happens to be the verb) just in case the clitics cannot find a phonological host to their left.

(68)   a.   **mu**   (dade) (knigata) (učitelkata)
             3SG.M.DAT gave   the.book the.teacher
       b.   ((dade)+**mu**) (knigata) (učitelkata)

Another approach which preserves the Prosodic Inversion intuition but dispenses with PF movement relies on the copy-and-delete theory of movement (Bošković 2001). Under this account, there are two copies of the clitic(s) in the underlying structure, one below and one above the verb. Normally, the highest copy in a chain is pronounced. However, a lower copy of a clitic can be pronounced only if pronouncing the higher copy would lead to a violation of the clitic's prosodic requirements, in this case NONINITIALITY.

(69)   a.   X clitics V <clitics>
       b.   <clitics> V clitics X

The main drawback to prosodic approaches stems from the fact that they assume the clitics are enclitic and use this to motivate PF displacement to the right so that the clitics find a host. This assumption, however, is faulty, as has been suggested in Pancheva 2005:134-5 and Franks 2008:99. The clitics do not have a preference for the direction of attachment—they can be either proclitic or enclitic, as long as they form a prosodic constituent with the verb. The other, related, drawback of these approaches is that sometimes clitics do appear initially within the identified prosodic constituents and no PF displacement takes place. These facts, which will be discussed shortly, are left unexplained by these approaches.

In concord with the work just described, the present proposal takes clitics to be subject to a NON-INITIALITY constraint which bans them from the left edge position of a certain domain. Where it differs from previous approaches is in the nature of the relevant domain. Following the discussion in the previous section, the present proposal takes the relevant domain to correspond to a Spell-Out domain. This is inspired by Franks and Bošković (2001), who show that the decision about which copy of a clitic to pronounce (above or below the verb in their framework) is made at a point in the derivation when the phase has already been

spelled out. At this point, it is only the current phase that enters into the picture and nothing outside it is available at PF. This allows them to correctly predict that when two CPs are conjoined, any clitics in the right conjunct will undergo Clitic Metathesis (in the absence of C-layer material) but when TPs are conjoined, clitics in the right conjunct will not undergo Metathesis. The reason is that since TPs are not Spell-Out domains, the whole conjunct phrase will be a single Spell-Out domain and the clitics in the right conjunct will technically be non-initial within that Spell-Out domain at the output of narrow syntax. However, for Franks and Bošković (2001) the final decision about clitic placement depends on the PF/phonological requirements that clitics have, in particular, their need to find a phonological host to their left. I differ from them in arguing that NONINITIALITY within Spell-Out domains is not prosodically motivated. Instead, the clitics are sensitive to being (non-)initial within Spell-Out domains. The present approach is then an extension of Franks and Bošković's which, in that it makes full use of the concept of phases, will also allow us to capture the distribution of clitics within other domains (DPs and adverbial participles).

In the previous section, it was demonstrated that the boundary that dative clitics cannot be right-adjacent to is the boundary of Spell-Out domains. Here, I show that this boundary cannot be described prosodically. To demonstrate that NONINITIALITY cannot be prosodic, I discuss cases where a uniform prosodic characterization of the domain of non-initiality is impossible. These are cases where Spell-Out domains do not map to (i.e. do not completely overlap with) prosodic constituents.

First, the presence of unstressed proclitic elements to the left of the clitics does not force them to move. Note that clitic movement is incorrectly predicted under a prosodic account because the clitics would need a host to the left. However, as was pointed out earlier, the pronominal clitics have not preference for directionality of attachment and simply form a prosodic word with the verb (see also Pancheva 2005 and Franks 2008).

(70) a. [... (i **mi**   **go**   dade)$_\omega$ Petko včera]
              and 1SG.DAT 3SG.M.ACC gave   Petko yesterday

          '... and Petko gave it to me yesterday.'

      b. [... (no **mi**   **go**   dade)$_\omega$ Petko včera]
              but 1SG.DAT 3SG.M.ACC gave   Petko yesterday

          '... but Petko gave it to me yesterday.'

      c. [... (če **mi**   **go**   dade)$_\omega$ Petko včera]
              that 1SG.DAT 3SG.M.ACC gave   Petko yesterday

          '... that Petko gave it to me yesterday.'

Second, the presence of an Intonational Phrase (ι) boundary to the left of the clitics does not force them to move:

(71) a. Včera   Petko (kojto veče   si   trəgna)$_\iota$ **mi**   **go**   dade.
              yesterday Petko who   already REFL left   1SG.DAT 3SG.M.ACC gave.3SG

          'Petko, who already left, gave it to me yesterday.'

      b. Petko (kakto možeš da se   ubediš   sam)$_\iota$ **mi**   **go**   dade.
              Petko as   able   to REFL convince alone 3SG.DAT 3SG.M.ACC gave.3SG

          'Petko, as you can make sure yourself, gave it to me.'

This placement pattern is observed with various kinds of parentheticals, all of which are typically assumed to be phrased in a separate intonation domain: non-restrictive relative clauses, sentential parentheticals, and (perhaps) comment clauses (see Dehé 2009). The Multiple Spell-Out approach adopted here predicts that the CP will not be sent to PF until the whole structure is built. At that point, the clitics (which follow an adverbial, the subject, and the parenthetical) are clearly non-initial and therefore do not have to undergo any post-syntactic readjustment. Parentheticals, being internal to the Spell-Out domain, do not change the fact

that clitics are non-initial. Under a prosodic account of non-initiality, movement of the clitics is incorrectly predicted here because of the absence of a host. These facts have been noted in the literature but have remained unappreciated and without explanation (Franks 2008:100, Pancheva 2005:114, fn. 7, Bošković 2001:218, fn. 37):

(72) a. Sled kato si   živjal dosta s   edna žena, **ja**   poznavaš mnogo dobre.
          after as   AUX.2SG lived a.lot with a   woman 3SG.F.ACC know   very   well
          'After you have lived with a woman a lot, you know her very well.'   (Franks 2008)

      b. Ot   njakolko sedmici, az, 19 g.,   si   imam prijatelka.
          since several   weeks   I   19 y(ears old) REFL have girlfriend
          'For a few weeks, I, 19 years old, have had a girlfriend.'   (Bošković 2001)

Finally, there are cases where in the absence of a prosodic boundary to the left of the clitics, they still move. Consider object DPs, which are parsed in the same Phonological Phrase (ϕ) as the verb and yet the clitics are never DP-initial (73). While this is expected if the DP Spell-Out domain is the relevant domain for NONINITIALITY, clitic movement in this case is unmotivated under a prosodic account.

(73) a. Maria (pročete [$_{DP}$ novata **mu** kniga])$_\phi$
          M.   read   the.new 3sg.dat book

          'Maria read his new book.'

      b. * Maria (pročete [$_{DP}$ **mu**   novata kniga])$_\phi$
          M.   read   3sg.dat the.new book

These diagnostics show that when prosodic constituents are not perfectly aligned with Spell-Out domains (see Kratzer and Selkirk 2007 and Ishihara 2007 on the mapping of phases to prosody), the placement of clitics is determined with respect to the edge of the Spell-Out domain. In other words, the domain of NONINITIALITY of dative clitics in all the syntactic environments they occur in does not correspond to any prosodic constituent.

This conclusion raises the following question: what is the place of the presently proposed NON-INITIALITY constraint in grammar. Here, I assume that it is encoded as a language-specific requirement on dative clitics which is involved in PF well-formedness:

(74) Non-Initiality requirement (imposed at PF)

      Dative clitics cannot be initial within a Spell-Out domain.

This requirement is directly affected by the syntactic derivation. In particular, if any constituents are Merged higher than the (derived) clitic position, the PF requirement (74) will be met. However, if the clitics happen to be initial within a given Spell-Out domain after it has been sent to PF, the NONINITIALITY requirement triggers what Embick and Noyer (2001) call a "support process". In this case, this is the familiar Clitic Metathesis operation sensitive to adjacency and precedence relations between elements:

(75) Clitic Metathesis

      Invert a clitic cluster (that contains a dative clitic) with the morphosyntactic word (MWd) to its right.

The picture of the syntax/PF interactions that emerges as a result involves language-specific PF requirements that trigger certain PF "support processes" which, however, can be bled by syntax. Note that a similar model of such interactions has been proposed, for example, to account for the distribution of definiteness marking in a variety of languages: Swedish (Embick and Noyer 2001:581), Danish (Hankamer and Mikkelsen 2005:106), and Amharic (Kramer 2010). In these languages, syntax can bleed the application of the available PF support processes. If it does not, however, the respective PF requirement triggers a rescue operation such as Lowering or Local Dislocation. In addition to displacement, PF requirements can also be

satisfied by morphological epenthesis. Arregi and Nevins (2008) discuss the requirement on the Basque finite T that it cannot be the leftmost morpheme within the word. Normally, this requirement is satisfied by the syntactic attachment of an absolutive proclitic to T. However, if no absolutive clitic is present, one of two context-dependent rescue operations applies. Either an enclitic moves to the left of T (Enclitic Metathesis) or an epenthetic morpheme is inserted to the left of T (L-support). A parallel should be drawn between Enclitic Metathesis and Affix Hopping on the one hand, and L-support and do-support (see the appendix), on the other. In each case a PF requirement is satisfied either by linear displacement or by morphological epenthesis. Bulgarian utilizes the linear displacement option to satisfy the PF requirement of dative clitics.

6 Conclusion

At its empirical core, this paper is a study of the placement of clitics across different syntactic domains and explores the question of whether a uniform set of constraints can be found that govern clitic placement across these domains in a particular language. The goal was to propose that the distribution of Bulgarian dative clitics is the result of a single constraint, NONINITIALITY within Spell-Out domains, and the PF displacement operation that potential violations of NONINITIALITY trigger. This approach unifies the behavior of dative clitics in all syntactic environments they can appear in. What appear to be superficial differences in placement patterns across these environments were shown to follow from the structural characteristics of the corresponding syntactic domains and not from special constraints on the clitics themselves. In particular, the apparent differences in clitic placement were attributed to the ability of the Spell-Out domains in question to accommodate material above the clitic adjunction site. One consequence of this approach has to do with the limited parallelism between clauses and nominal phrases: on the one hand, DP parallels TP with respect to clitic movement while, on the other, DP parallels CP by being a phase. Another consequence of the present approach bears on the nature of Spell-Out domains: following recent work, I proposed that Spell-Out domains must be equated with phases, contra Chomsky (2000, 2001).

Furthermore, it was demonstrated that the NONINITIALITY requirement imposed on Bulgarian dative clitics at PF and their linear displacement cannot be prosodic in nature. Any prosodic account would be both empirically inadequate and incapable of unifying the treatment of dative clitics across the various syntactic domains they can be associated with. On the other hand, an account which explains clitic placement in Bulgarian as a reflex of the interaction between Multiple Spell-Out, a PF requirement on dative clitics, and a morphological reordering operation was argued to be superior. A particular view of the syntax/PF interactions emerges as a consequence of the approach defended here. In Bulgarian, it involves a PF well-formedness requirement (NONINITIALITY within a Spell-Out domain) imposed on specific morphemes (dative clitics) which could trigger one or more rescue operations (Clitic Metathesis which is sensitive to adjacency and precedence only). Moreover, it was suggested that the same type of interactions are independently necessary for the treatment of various phenomena in other languages.

The results of the present investigation could serve as a stepping stone for further study of cliticization in Bulgarian directed, for example, towards extending the present proposal to the other clitics that cluster with the dative ones. Moreover, this work opens the door to further exploration and productive microcomparison of dative-clitic placement in the other languages that exhibit the possessive/indirect-object clitic syncretism: Balkan Slavic (Macedonian and Serbo-Croatian) and Romanian. As a case study for the interaction of syntax, PF requirements, and rescue operations in a strictly derivational modular model, the present work makes clear predictions about the ways in which the behavior of dative clitics in these language can differ. More generally the question arises of whether the approach defended here can be successfully extended to other languages that exhibit Tobler-Mussafia effects in their clitic placement. Furthermore, the analysis offered here shows how what look like 2P clitics on the surface are, in fact, head-adjacent and non-initial. In a similar vein, recent work by Kahnemuyipour and Megerdoomian (2008, 2010) shows that the

Eastern Armenian auxiliary, which looks neither like a 2P nor like a verb-adjacent clitic on the surface, is in fact 2P within vP. This line of work suggest that some puzzling types of clitic behavior can be much better understood if we reconsider the relevant domains of cliticization; in particular, it indicates that clitic position can be computed with respect to phasal domains instead of phrasal ones. At this point, the intriguing questions that arise as a result of this discussion have to be left open.

Appendix

In this appendix, I address the issue raised by the placement of certain adverbial modifiers within nominal phrases and adverbial participles in Bulgarian. Initially, it appears that the behavior of these modifiers challenges the descriptive generalizations arrived at in the rest of the paper. Here, I outline a treatment of these modifiers in terms of Late Adjunction which accounts for their invisibility for PF operations based on adjacency (such as Clitic Metathesis).

According to the PF merger analysis of English verbal morphology (e.g. Bobaljik 1995; Lasnik 1995; Ochi 1999, *i.a.*) T^0 is affixal and must merge with V^0 at PF under adjacency. The PF merger takes place in (76a) where T^0 and V^0 are adjacent but not in (76b) where the negative head intervenes between them (and do-support applies if PF merger fails).

(76) a. John T^0 leave → e.g. 'John left'

b. John T^0 not leave → e.g. 'John did not leave' vs. * 'John not left'

On the basis of constructions like (77), Bobaljik (1995) argues that adverbs, and adjuncts more generally, are not visible for the post-syntactic relation of adjacency. Note that the adverb *quickly* does not disrupt the adjacency relation between T^0 and V^0 (*cf.* Embick and Noyer 2001):

(77) a. John T^0 quickly leave → e.g. 'John quickly left'

b. An adverb T^0 never disrupt adjacency → e.g. 'An adverb never disrupts adjacency' (Bobaljik 1995:77)

In Bulgarian, similar effects are observed in nominal phrases and adverbial participles. For example, degree modifiers of adjectives, as in (78), and adverbial modifiers of deverbal adjectives, as in (79), are irrelevant for the placement of clitics in DPs. In each of these examples the clitic immediately follows the adjective and not the modifier. The generalization that the clitics in each of these examples occupies the second position in the nominal phrase can be maintained if the modifiers are assumed not to be present at the point of Clitic Metathesis.

(78) a. mnogo interesnata **mi** kniga
very the.interesting 1SG.DAT book
'my very interesting book'

b. dosta novoto **i** kolelo
quite the.new 3SG.F.DAT bike
'her quite new bike'

(79) a. (veče) razprostranenija **im** (veče) film
already the.distributed 3PL.DAT movie
'their already distributed movie'

b. (naskoro) kupenata **mu** (naskoro) kola
recently the.bought 3SG.M.DAT car
'his recently bought car'

This behavior of the clitics extends to the adverbial participle constructions as well. The clitic in the examples below always follows the verb form regardless of whether an adverb is present in front of it or not:

(80)   a.   (bərzo) pročitajki **mu**   (bərzo) knigata   (bərzo)
            quickly reading   3SG.M.DAT   the.book
            'quickly reading the book to him'

         b.   (vnezapno) podavajki **mu**   (vnezapno) noža   (vnezapno)
            suddenly   handing   3SG.M.DAT   the.knife
            'suddenly handing him the knife'

As Bobaljik (1995) points out, it is well-known that the argument/adjunct dichotomy is relevant at PF and he stipulates that this distinction plays a role in adjacency phenomena. One possible way to derive the transparency of adjuncts has been proposed by Lebeaux (1988), Ochi (1999) and Stepanov (2001), among others.[10] The intuitive idea is that adjuncts might be Merged "in a different plane" (Chomsky 2004). Ochi (1999) suggests that PF merger of T^0 and V^0 is possible in (77) because, in fact, it takes place at a point in the derivation when the two heads are adjacent, i.e. before the adverb is Merged. In a Multiple Spell-Out model of the syntax-phonology interface, the derivation proceeds as follows (Stepanov 2001):

(81)   a.   Create
            [John leave]

         b.   Merge T, Move subject
            John T [*t* leave]

         c.   Spell-Out, PF merger of T and V
            John left

         d.   Merge adverb
            [John quickly left]

         e.   Spell-Out
            John quickly left

In the case of the Bulgarian DP in (78b), repeated here, the adverb *dosta* modifying the adjective *novoto* is only Merged after Clitic Metathesis has taken place to invert the clitics with the adjective:

(82)   dosta novoto **i**   kolelo
         quite the.new 3SG.F.DAT bike
         'her quite new bike'

(83)   a.   Create
            [novoto **i** kolelo]

         b.   Merge D, Move clitic
            i [novoto kolelo]

         c.   Spell-Out, Clitic Metathesis
            novoto **i** kolelo

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[10]Other possible treatments of the facts described here exist. A promising approach, especially for degree adverbs, for example, involves adjunction of the modifiers directly to the heads they modify (Abeillé, Godard, and Müller 2003). That way, the resulting complex head will be a *morphosyntactic word* (MWd) at PF treated as a single unit by the Clitic Metathesis operation which would invert any initial dative clitics with the whole modifier-head complex yielding the observed orders. In addition, there have been other proposals in the literature, quite different in spirit, designed to capture the transparency of adjuncts to PF adjacency relations (e.g. Bošković 2004; Lasnik 2001:i.a.). Future work involving more than the Bulgarian data at hand is necessary to establish whether any of the aforementioned analyses can be argued to be more adequate than the other candidates. However, I restrict the present discussion to Late Adjunction since my goal here is not a definitive account of adjuncts but simply to show that they can be accommodated by the approach proposed in this paper without presenting a threat for the analysis.

  d.   Merge adverb
       [dosta novoto **i** kolelo]

  e.   Spell-Out
       dosta novoto **i** kolelo

The remaining question for this approach is why (84) is ungrammatical. The derivation of this examples involves a cyclically Merged adjunct (the adverb *quickly*) which disrupts the adjacency relation between T^0 and V^0. As a result, PF merger of these two heads fails and do-support applies accordingly:

(84)   * John did quickly leave.

To translate this concern into Bulgarian: why do clitics never follow an adverbial modifier, as in (85)?

(85)   * dosta **i**   novoto kolelo
        quite 3SG.F.DAT the.new bike

        'her quite new bike'

Ochi's (1999) answer is that adjuncts simply cannot be Merged cyclically at all. This solution is applicable to Bulgarian where the adjuncts in question, which are found in nominal phrases and adverbial participles, never affect clitic placement. However, then a further question arises of why adverbs in Bulgarian are not invisible to the mechanisms governing clitic placement in clauses. In particular, why are adverbs able to satisfy the NONINITIALITY requirement of clitics in examples like the following (*cf.* (80a)):

(86)   a.   Bərzo **mu**   pročete knigata
            quickly 3SG.M.DAT read   the.book

            'S/he quickly read the book to him.'

       b. * Bərzo   pročete **mu**   knigata
            quickly read   3SG.M.DAT the.book

I stipulate that in Bulgarian, adverbials found in the clause undergo Merge by *substitution* ("set-Merge") where the element they Merge with projects (thus, in essence, they are "specifiers"). On the other hand, degree words, intensifiers, and adverbials that modify adjectives and participles undergo Merge by *adjunction* ("pair-Merge") creating a segmented object. While this difference might be related to the phasehood of the phrases that the modifiers Merge with, future work is necessary to uncover a principled explanation for it.[11] The upshot is that only the elements Merged by *adjunction* are Merged acyclically, i.e. undergo Late Adjunction.

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[11]It is worth noting that a parallel exists between the availability of the two Merge options for Bulgarian adverbials and the distinction between "sentential" and "constituent" negation in English. In particular, it could be speculated that the only difference between the two types of negation is whether Neg is Merged by *substitution* (sentential negation) or by *adjunction* (constituent negation) (see also Baker 1991; Embick and Noyer 2001).

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