

PROSODIC CONSTRAINTS IN MORPHOSYNTACTIC DOMAINS*

Clitics are a famous topic challenging the modularity in grammatical organisation inasmuch as they cannot be adequately interpreted as exclusively belonging to one particular level of linguistic description. Various phenomena related to cliticisation, which are observable across languages, suggest that any description of clitic placement should take into consideration the interaction between (prosodic) phonology and (morpho)syntax.

According to *Nespor and Vogel 1986*, whether or not an element is a clitic should be decided on the basis of non-phonological criteria, but a specific place must be created in phonological theory for clitics. In this theory, the hybrid nature of clitics - their intermediate position between affixes and words - is reflected in the phonological component of the grammar by positing a distinct construct between the phonological word (which groups affixes with stems) and the phonological phrase (which groups words with other words), namely, the clitic group. It directly dominates one or more phonological words, but there is non-isomorphism between this particular level of prosodic structure and any construct of the morphosyntactic hierarchy. Recall in this context the commonly observed mismatch between the direction of (prosodic) attachment and syntactic structure, as well as the mechanism of prosodic inversion that is worked out in, e.g., *Halpern 1995*.

Nespor and Vogel's clitic group is compatible with our use of the term *prosodic word* in *Avgustinova 1994, 1997a*. However, they never consider any clitic clusters in the discussed monograph, while our term 'prosodic word' is intended to cover the host and all clitics leaning to it. With this substantial difference in mind, we basically agree with their conclusion that in clitic group formation syntactic constituency cannot always predict the direction in which the clitic finds its phonological host. Viewing the direction of phonological attachment as a property of the clitic itself and the clitic group formation as not necessarily respecting the syntactic constituency may naturally result in building a new non-isomorphic structure. A good example is the behaviour of the clustering enclitics in Bulgarian nominal constituents studied in *Avgustinova 1997b*.

The actual placement of any phonologically dependent, prosodically weak, atonic lexical item strongly depends on its syntactic domain of distribution. A support of this claim offer some of the Slavic languages in which well-developed clitic pronominal paradigms exist. In Czech, Slovak, Slovene or Serbo-Croatian, for example, the predicative clitics are *sentential*, in the sense that their syntactic domain of distribution is the entire sentence, or the clause, where they occupy the "second" position - also known as the *Wackernagel position* (following *Wackernagel 1892*).

This position may, of course, be defined differently for different languages. It may, for example, be after the first syntactic constituent, as in Czech, Slovak and Slovene, or alternatively, after the leftmost orthotonic lexical entity in the sentence (e.g., after the first word), as in Serbo-Croatian. In the latter language both the word-second and the

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constituent-second realisations of the Wackernagel position are possible for predicative clitics. Also in Polish, the weak pronouns and the reflexive particle can be regarded as sentential clitics whose placement within the clause is, yet, much more flexible than that in Wackernagel-type languages.

The equivalents of the sentential clitics in the above-mentioned Slavic languages are verbal clitics in modern Bulgarian. The situation in this language is quite intriguing due to the availability of two cliticisation relevant domains: the verb complex (VC) and the noun phrase (NP). Therefore, both verbal clitics (cf. *Avgustinova 1994, 1997a*) and nominal clitics (cf. *Avgustinova 1997b*) have to be distinguished.

In this short contribution we present an analysis which concentrates on Bulgarian and accounts for the fact that the actual positioning of clitics and clitic clusters in this language depends, firstly, on the syntactic domain of their distribution (verbal or nominal), and secondly, on prosodic and phonological properties the involved clitics exhibit alone or in combination with one another. This is achieved, by introducing for every clitic a phonological specification revealing the direction of prosodic attachment, in addition to indicating - via a selectional restriction - the morphosyntactic category of its possible host.

As already mentioned, Bulgarian verbal clitics belong to the verb-complex constituent and are hosted by (a stressed component of) the verb (form). In this morphosyntactic domain they are subject to a number of constraints that are formulated on the basis of mostly phonological / prosodic information. They For instance, the clause-initial restriction states that the "movable" verbal clitics (also known as endoclitics), which have no fixed direction of phonological attachment, can never occur clause-initially. As a result, their phonological attachment is either enclitic or proclitic, as (1) illustrates¹. In a non-initial position of the verbal element hosting the endoclitic(s), a clear tendency to proclitic attachment of the latter is observed, which we can call the proclitic bias - cf. (1)b.

(1)

- a. Видях я отново.
see-AOR.1SG ACC-3SG.FEM again
'I saw her again.'
- b. Отново я видях.
again ACC-3SG.FEM see-AOR.1SG
- c. *Я видях отново.
ACC-3SG.FEM see-AOR.1SG again

Furthermore, a Wackernagel-position effect is observable within the verb complex constituent, which, again, can be described in prosodic rather than syntactic terms. In

¹ Abbreviations used in the glosses: DAT - dative pronominal clitic; ACC - accusative pronominal clitic; Q - interrogative particle; FUT - future-tense particle; NEG - negative particle; CONJ-PRT - conjunctive particle; DEF - definite-article morpheme; POSS - possessive clitic pronoun; AOR - aorist; PCP - participle; BE-PAST - past tense of the auxiliary "be"; BE-PRES - present tense of the auxiliary "be"; SG - singular; PL - plural; 1 - first person; 2 - second person; 3 - third person; MASC - masculine; FEM - feminine. In the examples, the prosodic attachment is indicated by an underscore connecting the host and the clitic(s).

previous publications, we have called it the quasi-second-position condition. It states that no more than one phonologically strong element is allowed to precede the clitic(s) within the verb complex - cf. the ungrammaticality of (2)d,e.

(2)

- a. БЯХ Я ВИДЯЛ
BE-PAST.1SG ACC-3SG.FEM see-PCP.SG.MASC
'I had seen her'
- b. ВИДЯЛ Я БЯХ
see-PCP.SG.MASC ACC-3SG.FEM BE-PAST.1SG
- c. ... Я БЯХ ВИДЯЛ
... ACC-3SG.FEM see-PCP.SG.MASC BE-PAST.1SG
- d. * БЯХ ВИДЯЛ Я
BE-PAST.1SG see-PCP.SG.MASC ACC-3SG.FEM
- e. * ВИДЯЛ БЯХ Я
see-PCP.SG.MASC BE-PAST.1SG ACC-3SG.FEM

Also the placement of the verbal interrogative particle is determined by constraints involving prosodic information: it immediately follows the leftmost stressed element in the verb-complex - cf. *Avustinova 1994* for examples and further discussion. Summing up, the clause-initial restriction, the proclitic bias, the quasi-second position condition, and the placement of the verbal interrogative particle are all based on prosodic-in-nature constraints. These constraints are to a large extent related to the structuring of the verbal morphosyntactic domain into accentual units - prosodic words.

The verbal clitic cluster is a strictly ordered sequence and a prosodically set grouping whose external behaviour is determined by the properties of the clitics forming it. Intuitively, the cluster as a whole can be viewed as inheriting the properties of its parts. The core of the cluster is formed by the "movable" verbal endclitics - the present-tense form of the be-auxiliary and the pronominal (and reflexive) clitics - cf. (3)². Note, by the way, that (3)c. violates the clause initial restriction, and (3)d. does not conform to the proclitic bias. As expected, the results are ungrammatical.

(3)

- a. Показвала_(сЪм ти я) сигурно на снимка.
show-PCP.SG.FEM BE-PRES.1SG DAT-2SG ACC-3SG.FEM probably on picture
'I have probably shown her to you on a picture.'
- b. Сигурно на снимка (сЪм ти я)_показвала.
probably on picture BE-PRES.1SG DAT-2SG ACC-3SG.FEM show-PCP.SG.FEM
- c. *(СЪм ти я)_показвала сигурно на снимка.
BE-PRES.1SG DAT-2SG ACC-3SG.FEM show-PCP.SG.FEM probably on picture
- d. *Сигурно на снимка показвала_(сЪм ти я).
probably on picture show-PCP.SG.FEM BE-PRES.1SG DAT-2SG ACC-3SG.FEM

² Notational conventions to be used in the examples: () delimits the core of a clitic cluster; [] marks a clitic cluster consisting of a core and periphery; { } is used to specially mark off combination of proper proclitics; < > delimits an enclitic group.

Verbal proclitics (*ще, да, не*) and the verbal enclitic (*ли*) may only occupy the periphery of the verbal clitic cluster - cf. (4) - but then they determine the attachment properties of the grouping as whole. The distinction core vs. peripheral with respect to clitic cluster formation is worked out in details in *Avgustinova 1994, 1997a*. Unlike peripheral clitics, core clitics are obligatory components of clitic clusters.

(4)

- a. Тя [ще (ви ги е)]_показала още преди доклада.
 she FUT DAT-2PL ACC-3PL BE-PRES.3SG show-PCP.FEM already before lecture-DEF
 'She will have shown them to you already before the lecture.'
- b. Трябва [да (ви ги е)]_показала.
 must CONJ-PRT DAT-2PL ACC-3PL BE-PRES.3SG show-PCP.FEM
 'She should have shown them to you.'
- c. Още [не (ви ги е)]_показала.
 still NEG DAT-2PL ACC-3PL BE BE-PRES.3SG show-PCP.FEM
 'She hasn't shown them to you yet.'
- d. Тя показала_[ли (ви ги е)]?
 she show-PCP.FEM Q DAT-2PL ACC-3PL BE-PRES.3SG
 'Has she shown them to you?'

What are the selectional requirements associated with a clitic?

The morphosyntactic specification of a clitic amounts to an indication of its distribution domain, which may be nominal or verbal in Bulgarian. Specifically, as it is assumed in, e.g., *Halpern 1995*, the clitics select the morphosyntactic category to which they may attach. For two clitics to combine into a cluster they must select the same domain, or put more formally, their domain specifications must unify. This means, among other things, that clitics with distinct domains are never combined into a single cluster, even if they are coincidentally adjacent, as in (5)b.³

(5)

- a. Преди доклада му ли секретарката ще ви ги е показала?
 before lecture_[DEF POSS-3SG.MASC Q] secretary_DEF [FUT DAT-2PL ACC-3PL BE-PRES.3SG]_show-PCP.FEM
 'Will it be before his lecture that the secretary will have shown them to you?'
- b. Преди доклада му ли ще ви ги е показала секретарката?
 before lecture_[DEF POSS-3SG.MASC Q] [FUT DAT-2PL ACC-3PL BE-PRES.3SG]_show-PCP.FEM secretary_DEF

The prosodic specification of a clitic, on the other hand, indicates whether a prosodic constituent of a certain type is required to the right or to the left. Let '~X~' indicate that the direction of prosodic selection is not determined by the clitic X. This is true of the core verbal clitics (endoclitics). At the same time, let us represent the proclitics proper as 'X_' and enclitics proper as '_X', with the underscore indicating the predetermined direction (rightwards or leftwards) of selection of a prosodic host. So, '~X~' means that the clitic X may be attached by a prosodic host either to its right (as a proclitic) or to its

³ For perspicuity, the nominal domain is underlined by a single line and the verbal domain by a double line.

left (as an enclitic), 'X_ ' means that the clitic X leans to a prosodic host to its right, while '_X' means that the clitic X leans to a prosodic host to its left. Then the various clitic groupings can be represented as resulting from the possible compositions of prosodic specifications of the clitics involved.

Let us first consider the verbal morphosyntactic domain in Bulgarian. A combination of two "movable" endoclitics yields the core clitic cluster which itself has no predetermined direction of prosodic attachment: $|\sim X\sim| + |\sim Y\sim| = |\sim XY\sim|$. Due to the position of the host, the core clitic cluster is enclitic in (6)a. and proclitic in (6)b., which is in conformity with the clause-initial restriction in the former case and with the proclitic bias in the latter.

(6)

a. Дадох__ (ви ги).

give-AOR.1SG DAT-2PL ACC-3PL

'I gave them to you.'

b. Аз (му го)__ дадох.

I DAT-2PL ACC-3PL give-AOR.1SG

Clitics with fixed direction of phonological attachment occupy the periphery of the clitic cluster and block its "movability" with respect to the host. If an enclitic proper is combined with a core clitic (cluster), the result is an enclitic cluster: $|_X| + |\sim Y\sim| = |_XY|$. As (7) illustrates, the entire cluster leans then to a host to its left. Note that in (7)b. this overrides the proclitic bias.

(7)

a. Даде__ [ли (му ги)] вчера?

give-AOR.2SG Q DAT-3SG.MASC ACC-3PL yesterday

'Did you give them to him yesterday?'

b. Ти вчера даде__ [ли (му ги)]?

you yesterday give-AOR.2SG Q DAT-3SG.MASC ACC-3PL

Two peripheral clitics of the same type "unite" their selectional requirements, as in the case of the proclitic group: $|X_| + |Y_| = |XY_|$. (The example in (8) is a variant of the more frequently used negated future-tense verb-form *няма да дойде*, which employs the negative future auxiliary and the conjunctive particle.)

(8)

{Не ще}__дойде.

NEG FUT come

'She / he will not come.'

The creation of proclitic cluster is symmetric to that of the enclitic cluster. The periphery is occupied by a proclitic proper, which forces the entire cluster to select a host to its right: $|X_| + |\sim Y\sim| = |XY_|$. As expected, the clause-initial condition does not apply to such a grouping - cf. (9), since the core clitics are not immediately clause-initial.

(9)

[Ще (ти ги)]____дам.
FUT DAT-2SG ACC-3PL give
'I shall give them to you.'

Since there is only one enclitic proper among the verbal clitics in Bulgarian, namely, the verbal interrogative particle, no enclitic group is attested within the verb complex. This is possible, however, within the Bulgarian NP, as (10) illustrates. A composition of enclitics results in an enclitic group: $|_X| + |_Y| = |_{XY}|$, which is considered in *Avgustinova 1997b* under the term nominal enclitic cluster. It is important to keep in mind that possessive clitic is a pure enclitic within the NP (while the homonymous dative clitic is a movable core clitic within the verb complex).

(10)

Приятелката ___ <му ли> дойде?
girl-friend_DEF POSS-3SG.MASC Q came
'Was it his girl-friend who came?'

Finally, there is one more theoretical possibility which does not occur in modern Bulgarian, namely: $|X_| + |_Y| = |XY|$. This is supposed to be a prosodically independent combination obtained by "cancelling" the selectional phonological requirements of a proclitic and an enclitic. Historically, however, this might be how Bulgarian tag-question particle *нали*, which is a prosodically strong lexical item, has emerged.

From a broader Slavic perspective, we have distinguished also the clause as a morphosyntactic cliticisation domain that is relevant for the distribution of predicative clitic in both Wackernagel-type of languages and Polish. It is crucial to realise that the prosodic attachment of Wackernagel clitics is associated with a (certain kind of) "second" position rather than with a prosodic host of a particular (morphosyntactic) category. Therefore, they can be regarded as *autonomous clitics* in opposition to *host-category-bound clitics* discussed above.

In this contribution we have shown a way of modelling the fact that clitics of all types are subject to both morphosyntactic and prosodic conditions. The presented approach allows us to formulate not only cross-linguistic generalisations but also language-specific variation.

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Резюме

В статията се разглеждат въпроси, свързани с формирането и разположението на групи от клитики. Изтъква се необходимостта от комплексен подход, който да отчита както синтактичния, така и фонологичния аспект на проблематиката. На общославянския фон особен интерес представляват българските приглаголни и присубстантивни клитики. Тези две групи могат да бъдат разграничени въз основа на областта си на синтактична дистрибуция. В първия случай това е глаголният комплекс, а във втория - номиналната фраза. Ето защо на всяка клитика в качеството ѝ на лексикална единица е необходимо да се припишат селекционни характеристики, определящи морфосинтактичната категория на потенциалния ѝ прозодичен "домакин", т.е. на фонологично силния елемент, с който тази клитика може да изгради самостоятелна прозодична единица. Едновременно с това всяка клитика трябва да определя и посока на прозодично присъединяване: проклитична, енклитична или неопределена. Когато няколко клитики селектират един и същи "домакин", те образуват комплексна клитична единица, чиито прозодични характеристики се определят от непосредствено съставящите я елементи. В основната част на статията е представен механизмът на композиране на различни типове клитични комплекси.

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