

Bulgarian Clitics as K^0 Heads

Steven Franks *Catherine Rudin*
Indiana University *Wayne State College*

1. Overview: the structure of KP

In this paper we sketch an analysis of Bulgarian (Bg) pronominal clitics as heads of $K(\text{ase})P$, one of whose merits is that it provides an explanation for the obligatoriness of Clitic Doubling (CD) in certain constructions. The paper starts with a sketch of the proposal, followed in Section 2 by a summary of the facts of CD in Bg. Section 3 raises some questions which any analysis of Bg clitics must confront: Are clitics arguments? Are they in specifier or head positions? How is their linear order achieved? What accounts for CD? Section 4 presents our analysis. We start from Bošković's (2002) answers to some of these questions, which we adopt in part; we develop an account whereby the clitic and its associate (the doubling DP) are merged as a unit; and we argue that realization of the clitic head results from movement of the associate DP out of its containing KP, accounting in this way for CD.¹ In the final part, we discuss various consequences of the proposed system, including how the analysis derives the correct clitic order.

Our analysis allows some latitude in the maximal functional projection dominating nominal expressions. These may have features for case and referentiality, but whether such features are realized on KP or DP is a matter of morphology. Pronominal clitics in Slavic instantiate K^0 and in Romance they instantiate D^0 .² The

¹ A FASL reviewer draws our attention to Werkmann (2003), who proposes an analysis which is formally very similar to ours.

² The approach outlined below for Slavic pronominal clitics might be extended to Romance as follows: Spanish (cf. Franco 2000) is basically the flip side of Bg (1), i.e. with DP over KP (except that KP is morphologically realized with the preposition *a*), so that, like Bg, there is doubling and verb-adjacency. Old

usual situation is for D or K to take an NP complement. For Bg, however, we argue that *both* KP and DP are projected, as in (1):

(1) [KP K⁰ [DP ...]]

It is this structure that gives rise to CD, which we claim is the consequence of there being two distinct maximal projections in the nominal domain. It is also the source of the differences between Serbian/Croatian (SC) clitics and Bg: clitics exhibiting special syntactic behavior are non-branching maximal projections, which for Slavic means that KP exhaustively dominates K⁰:

(2) [KP K⁰]

Such an element can function as a phrase but move as a head. In languages without doubling, such as SC, pronominal clitics are merged directly as in (2), but, we will argue, in doubling languages such as Bg the non-branching structure in (2) is *derived* from (1) only in the course of the derivation.

2. Obligatory Clitic Doubling

Clitic Doubling is a pronominal clitic cooccurring with a coreferent nominal, either a non-clitic pronoun or a noun phrase. This nominal is the “associate” of the doubling clitic. Although subject to stylistic and dialectal variation and deplored as illogical by prescriptive grammarians, CD is a robust feature of Bg grammar. In certain situations, it is even obligatory. A fundamental question is whether CD can be analyzed as a syntactically uniform phenomenon. Are the obligatory doubling experiencer, topic, and

Spanish was more like SC (2), except with non-branching DP rather than KP, so that, as in SC, there was no doubling (and clitics were in second position). In French, on the other hand, they are *branching* DPs, so that the clitics are morphologically determiners but without doubling (and they are verb-adjacent).

initial *wh*-contexts discussed below reducible to a unified condition? We claim that they are, and that this condition crucially depends on analyzing the pronominal clitics as K° .

One obligatory doubling context is when the associate is an oblique subject, i.e., an argument which is thematically most prominent but not a canonical nominative subject. It is typically an Experiencer, as in the examples in (3) and (4).

(3) a. **Na mene** ne ***(mi)** e studeno.
to me not me is cold
'I am not cold.'

b. **Lesno *(mu)** e **na Petâr**.
easy him is to Peter
'It's easy for Peter.'

c. **Na Ivan *(mu)** xaresva Marija
to Ivan him pleases Marija
'Ivan likes Marija.'

(4) a. **Elena *(ja)** e strax.
Elena her is fear
'Elena is afraid.'

b. **Nego *(go)** boli stomaxât.
him him hurts the-stomach
'His stomach hurts.'

In impersonal constructions with a dative (3) or accusative (4) associate, the clitic is required.³ Examples (3c, 4b) show that oblique subjects can co-occur with a nominative argument.⁴

³ The associate of course may be missing; expressions like *Lesno mu e* 'It's easy for him' or *Stomaxât go boli* 'His stomach hurts' are perfectly fine. Note that clitics and their associates are boldfaced throughout the paper.

⁴ The postverbal position of this nominative is irrelevant; the doubling facts remain the same even if the nominative comes first and the associate last:

- (i) Marija ***(mu)** xaresva **na Ivan**.
- (ii) Stomaxât ***(go)** boli **deteto**.

Another obligatory doubling context, at least for many speakers, is when the associate is a Topic.⁵ The topicality-marking function of CD has often been noted; see, for instance, Leafgren 1997, Jaeger 2003, or Arnaudova 2002; the examples in (5) are from Hauge (1999).

- (5) a. **Ivan** *(**go**) poznavam.
 Ivan him I-know
 ‘I know Ivan.’
- b. **Tjix** nikoj ne *(**gi**) pazi.
 them nobody not them guards
 ‘Nobody is guarding them.’
- c. **Na nego** *(**mu**) kaza.
 to him him told
 ‘S/he told him.’
- d. Zašto ne *(**im**) kaza **na drugarite** **ot bjuroto**[...]
 why not them told to the-comrades from the-office
 ‘Why didn’t you tell the comrades from the office [...]?’

A third context in which CD is obligatory, noted by Jaeger (2003), is multiple *wh* constructions with apparent superiority violations

- (6) a. Koj **kogo** *(**go**) narisuva?
 whom who him drew
- b. **Kogo** koj *(**go**) narisuva?
 ‘Who drew whom?’

In (6) the clitic is necessary (and possible) only when the object *kogo* precedes the subject *koj*. Jaeger treats the initial *wh* in (6b) as a type of topic, despite its otherwise focus function.⁶

⁵ This may overlap to some extent with the oblique subject condition, since the highest argument tends to be the topic. However, the two conditions are distinct, as these are obligatorily doubled even when not topical.

⁶ An anonymous reviewer reminds us that focus is *never* doubled, even though it is fronted; cf. the discussion of example (14) below:

We contend that, before *wh*-movement, *kogo* in (6b) moves to an A-position above *koj*, so superiority is in fact respected: when [+wh] C is merged *kogo* is the closest *wh*-phrase. One argument for the intermediate A-movement step is the fact that CD obviates weak cross-over effects (Arnaudova 2002). This implies, just as with the anti-superiority effect, that *vsjako dete* in (7) undergoes eventual A-bar movement from an A-position above *majka mu*.

- (7) **Vsjako dete** majka mu ***(go)** običa.
 every child mother his him loves
 ‘Every child is loved by his mother.’

3. Some basic questions

Before presenting our analysis, we consider several long-standing puzzles concerning the nature of clitics in Bg. These are issues which must be confronted by any account of clitic syntax.

3.1. *Are pronominal clitics arguments or agreement?*

In languages like SC, clitics are in complementary distribution with tonic pronouns/full NPs and are surely arguments. But with CD, the question arises which is the true argument, the clitic or the associate. If the clitic is an argument, the associate is typically seen as an adjunct, but if the associate is the argument, then the clitic must instead be object agreement or some other formal feature.

Empirical problems arise under either analysis. If the clitic is object agreement, why is it not obligatory in all sentences with an object, and why can the associate be absent? Typical answers are that the clitic/agreement is sensitive to features such as topicality or specificity; and that the associate (object argument) can be *pro*. On the other hand, if the clitic is an argument, why can it double

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- (i) STATIJATA (***ja**) pročetox.
 ‘It was the article that I read.’

Within our system, this suggest focus movement fronts the entire KP.

and what is its relation to the associate? The typical solution is an associate generated in an adjoined position, such as Topic, which can corefer with an argument in the clause.

Because of unresolved problems with the clitic-as-argument hypothesis, we argue for a version of the agreement approach. In particular, if the clitic were the argument and the associate a base-generated adjunct, it would be a mystery why the relationship between the clitic and its associate should be constrained in precisely the same way as *wh*-movement is.⁷ In fact, topicalization in Bg CD constructions has all the hallmarks of movement. For example, it is sensitive to classic island constraints, such as the Complex NP Constraint and Adjunct Constraint, illustrated in (8a-b) (from Arnaudova 2002), but not to *wh*-islands, as in (8c). Exactly the same facts hold for *wh*-movement, as in (9).

- (8) a. ***Marija** sreštnax [mâža [kojto **ja** običa __]]
 Marija I-met man-the who her loves
- b. ***Vestnika** zaspax [dokato **go** četeše __]
 the-newspaper you-fell-asleep while it you-read
- c. **Knigata** ni objasni Marija, [kâde **ja** e kupila __]
 book-the us explained Marija where it has bought
 ‘Marija explained to us where she bought the book.’
- (9) a. *Kogo sreštnax [mâža [kojto običa __]]?
 whom I-met man-the who loves
- b. *Kakvo zaspax [dokato četeše __]?
 what you-fell-asleep while you-read
- c. Kakvo vi objasni Marija, [kâde e kupila __]?
 what you explained Marija where has bought
 ‘What did Marija explain to you where she bought?’

⁷Other problems are why CD (i) requires identity in person-number features and (ii) is sensitive to topicality. The first will fall out from our account, since clitics are merged together with their associates; the second will require topicalization to differ from focus movement in targeting DPs rather than KPs.

3.2. *Are pronominal clitics heads or phrases?*

A second basic question, debated in for example Halpern and Fontana 1994, is whether the clitics are phrases (XP) or heads (X^0). As theta-role bearing arguments, pronominal clitics should be phrasal. However, they seem to behave as heads in Bg, since (i) they move stepwise, obeying the Head Movement Constraint, (ii) they are attached to the verb, which is a head, and (iii) other clitics, such as *li* and verbal auxiliaries, are heads under most analyses.

The phrase vs. head question translates into one of whether verb-adjacent clitics occupy specifier or head positions, assuming standard X-bar theoretic principles. As phrases, the clitics would occupy specifier positions (e.g., SpecTP or SpecAgrP), while as heads they would occupy (or be adjoined to) functional head positions. The phrase vs. head issue raises significant questions not only for the position and status of the clitics but also for that of the associate. If the clitics are heads, what phrase are they heads of, and how does that phrase relate to the associate? If on the other hand they are phrases, must the associate be an adjunct, and if so what is their relationship to that adjunct? We will resolve this problem (in the spirit of Uriagereka 1995, Kayne 2002, Boeckx 2003, and others) by arguing that the associate and the clitic are introduced in a single projection, so that clitics are heads which take their associates as complements.

3.3. *How are the clitics ordered?*

A third issue concerns the relative positions of clitics and whether the pronominal clitics should be treated like other clitics. In Bg, the clitics group together into a so-called cluster which in rough terms appears preverbally unless this would place the clitics in initial position, in which case they follow V. Within the cluster there is a strict order. For the auxiliary and pronominal clitics, this order is AUX>DAT>ACC (10a), unless the auxiliary is 3rd person singular, in which case the order is DAT>ACC>AUX (10b).

- (10)a. Ti **si** **mu** **go** dala.
 you AUX him-DAT it-ACC given
 ‘You **have** given **it** to **him**.’
- b. Tja **mu** **go** **e** dala.
 she him-DAT it-ACC AUX given
 ‘She **has** given **it** to **him**.’

There are two basic approaches to accounting for the ordering facts: templatic and syntactic; see Franks and King 2000: 320-330 for discussion. Traditional grammars, such as Hauge 1999, stipulate the order as a template. While this provides a workable statement of the facts, it is entirely unexplanatory and thus unsatisfying. In this paper we focus on two separate facts that must be captured by any syntactic account: (i) the exceptionless dative-before-accusative order of the pronominal clitics and (ii) the differing position of 3sg and non-3sg auxiliary clitics.

4. Towards a solution

This section proposes an analysis and explores its consequences.

4.1. *Bošković’s approach*

Bošković (2002: 329) addresses clitic ordering in terms of recent models of phrase structure, resolving the specifier/head paradox as follows: “clitics are syntactically defined as non-branching elements (i.e. ambiguous X^0 /XPs).” Since they are simultaneously both heads and phrases, clitics can be introduced in XP positions (as specifiers or complements) but subsequently move as heads. Bošković further assumes Kayne’s Linear Correspondence Axiom (LCA), which forces head-adjunction to be always to the left. Thus, to get a clitic on the left of the verb, the clitic has to move to the verb from below it (i.e., from a position to its right).

These assumptions let Bošković derive clitic order as follows. The clitics are, at an intermediate point in the derivation, located in

the Spec of some category FP.⁸ The verb raises *past* each clitic to the next head up, after which the clitic itself moves, raising to adjoin to the left of V. This is illustrated by the phrase (*ti*) *si mi go dal* ‘you gave it to me,’ starting with a structure as in (11):

(11) [TP **si** [T' [AgrIOP **mi** [AgrIO' [AgrOP **go** [AgrO' [VP **dal**]]]]]]]

The derivation proceeds from this configuration to produce (12), as follows. V adjoins to AgrO. AgrO (which now includes V) then adjoins to AgrIO, placing *dal* above the Spec containing *go*. Next, *go*, moving as a head, adjoins to AgrIO, which places it to the left of *dal* (since all adjunction is to the left). AgrIO, containing *go dal*, now moves past *mi*, enabling *mi* to adjoin (as a head) to *go dal*. T, containing *mi go dal*, moves past *si* to the next functional head up (which Bošković simply calls F). Finally, *si* moves up from SpecTP to adjoin to the left of F.⁹

(12) [FP [F **si** [**mi** [**go dal**]]]]

Thus Bošković’s system produces the required AUX>DAT>ACC word order, assuming only left-adjunction, in keeping with Kayne’s antisymmetry hypothesis.

While we will retain this insight (with different details), the approach does have some problems. One is that auxiliary clitics are treated quite counterintuitively as non-branching, but phrasal specifiers, with Aux always having a null head. Furthermore, even

⁸ Presumably the pronominal clitic XP/X° moves to SpecFP from a lower argument position, but Bošković is silent on this point and it is not essential for our account.

⁹ Note that, for this to work, excorporation must be specifically disallowed. Bošković (2001: 201) does this by adopting a condition which states that “a phonologically non-deficient element Y cannot excorporate out of a complex X°-element W if W contains a phonologically deficient element.” We take issue with such a condition, since it imposes a phonologically motivated restriction on a syntactic operation.

with this oddity, the system does not account (at least, in purely syntactic as opposed to prosodic terms) for 3sg Aux *e* following rather than preceding the pronominals. Other issues which are problematic for Bošković's system are (i) accounting for CD and (ii) accommodating the evidence that pronominal clitics form a cluster themselves.¹⁰ We propose to solve all of these problems with an alternative model that introduces pronominal clitics in Bg as transitive heads which only become non-branching in the course of the derivation.

4.2. *A new account: Clitics as K⁰*

Our analysis depends crucially on the internal structure of nominal expressions. Nominals in older Slavic were maximally KP rather than DP, with clitic pronouns instantiating K⁰. With the rise of a definite article, a distinct DP arose in Bg. We propose that pronominal clitics remained K⁰; hence Bg retains KP, as in (13):

(13) [KP clitic [DP D [NP/QP/AP]]]

The structure in (14a) then serves as the source of examples in which only the clitic is pronounced (14b), only the associate is (14c), or both are (14d):

¹⁰ Splitting of the clitic cluster is possible to some degree with adverbs like (*vse*) *ošte* 'still, yet', *veče* 'already', *vednaga* 'right away' (though the most natural position for such adverbs is outside the cluster, immediately following the subject). Pronominal clitics however seem to form a tighter cluster, in the sense that such adverbs can occur between V and clitics or between auxiliary and pronominal clitics but not between two pronominal clitics. (These examples are from Roumyana Slabakova, p.c.; variation reported):

- | | | | |
|-------|---|------|---|
| (i) | ?Ti si <u>veče</u> mu go dal. | (ii) | *Ti si mu <u>veče</u> go dal. |
| (iii) | Ti si mu go <u>veče</u> dal. | (iv) | *Tja mu veče go e dala. |
| (v) | ?*Tja mu go veče e dala. | (vi) | Tja mu go e <u>veče</u> dala. |

See Franks (in press) for detailed discussion of adverb interpolation, as well as a demonstration of how the above data comport well with the analysis put forward in this paper, in particular, with the structure proposed in (15).

- (14)a. [VP pročetox [KP [K° ja] [DP D° [NP statijata]]]]
 I-read it the-article
 b. Pročetox **ja**. c. Pročetox **statijata**.
 d. **Statijata ja** pročetox.
 ‘I read the article.’

The analysis of CD is simply that the clitic is the reflex of movement of the associate DP through SpecKP; this is similar to the account of resumption in Boeckx (2003). When both a clitic and a full phrasal associate occur, as in (14d), K has an overt DP complement which, by virtue of moving through SpecKP, triggers Spec-head agreement.¹¹ This agreement is instantiated as an overt clitic pronoun, preserving the insight that clitics are in some real sense agreement markers; following Lobeck (1990), among others, we recognize that agreement is needed to license a silent complement. When no clitic is present, as in (14c), its DP complement has not moved out of the KP. Finally, in (14b), there is a silent *pro* topic which escapes KP, inducing the clitic as a consequence, just as an overt topic would.

An interesting aspect of this analysis is that pronominal clitics head transitive KPs but their complement DP vacates KP in the course of the derivation. Thus, the “ambiguous X°/XP” structure arises only subsequent to the initial merge. How might this work? We hypothesize that KP first undergoes XP movement, overtly occupying its case-licensing position.¹² In this way, *both* the clitic (KP/K) *and* the associate (DP) have their case features valued (identically). The associate then moves out of KP, for any of the reasons described, after which the clitic now heads a non-branching KP (assuming, in keeping with current minimalism, that

¹¹ Actually, this step is not essential to our account and may even be impossible. Its movement from complement to specifier position is ruled out in principle, as in recent approaches to antilocality, such as that of Abels (2003).

¹² This could be SpecAspP or SpecAgrP, depending on where one believes case is licensed; these details are not essential to our analysis.

traces do not count). It is only at this point, then, that the K^0 clitic can raise, as a head, and adjoin to the left of its host, the verb.

Recall from Section 2 the various situations in which CD is obligatory: (i) when the associate is an oblique subject; (ii) when it is a topic; (iii) when *wh*-movement appears to violate Superiority. Our account requires that each of these situations involve movement of the associate through the SpecKP position. This raises some interesting problems, which here we can do no more than point out. In each instance, it is DP rather than the containing KP which moves. Hence, a fundamental question is why the entire KP does not move instead. Here are some speculations. (1) For oblique subjects, the reason for raising out of their containing KPs is presumably that the “highest” theta role (on the theta hierarchy) cannot be VP-internal. Since an oblique subject bears the highest theta-role—it is the “logical subject”—it cannot remain VP-internal. We assume that the highest theta-role is visible only on a DP, not on a KP, so the DP has to escape from KP before it can escape from VP. (2) For topics, we assume that the topic feature can percolate up only as far as DP, not all the way to KP, so the DP has to escape from KP. The DP with a topic feature, on its way to its eventual topic position, moves first to SpecKP, then on up to SpecTopicP, leaving the KP with its clitic head behind. (3) Superiority results from the “Attract closest” effect, so in (6a) *kogo* must be higher than *koj* at the relevant point in the derivation, having moved past *koj* to some A-position at the left edge of the clause prior to *wh*-movement. For this to happen, *kogo* must escape its containing KP. As a consequence of this intermediate movement, the clitic *go* is obligatorily introduced in the sentence.

4.3. *Clitic ordering*

So far as we can tell, our proposal preserves the basics of Bošković’s approach with respect to the DAT > ACC > V word order: pronominal clitics move as heads, in conformity with the LCA. Note however that, if the clitic were a non-branching head in its base position and if as is standardly argued the clitics move as

soon as they can (assuming economy of movement), then we would expect the object clitic K^0 to adjoin to V before V moves at all. For us this is impossible, since KP branches at that point in the derivation. So the delay forced by the need for the KP to move first to its case-licensing position and then for DP to escape so that derived non-branching results properly postpones adjunction, as required by Bošković's system.

On the other hand, there is no reason to expect non-pronominal clitics to behave in the same fashion. Recall the pattern for placement of auxiliary clitics: they precede pronominal clitics, except for the 3sg auxiliary *e*. As noted, Bošković derives the AUX > PRONOUN order by generating Aux as XP/X^0 in some Spec position. The clitics-plus-verb constituent (e.g., *mu go dal*) moves as a head past Aux, which then left-adjoins as a head to the clitics-plus-verb group. We see several problems with this account, including the issue of which positions the auxiliaries raise to.¹³ But the main difficulty is that Bošković has no principled account of why 3sg *e* is last, achieving it essentially by stipulation. This undercuts the entire analysis: if one part is stipulated, why not stipulate the rest? It would be clearly preferable to treat the position of all auxiliary clitics as non-accidental.

Our analysis highlights a fundamental difference between pronominal and auxiliary clitics: if we assume the latter (contra Bošković) to be merged as functional heads such as AgrS and T, they are never non-branching phrases.¹⁴ Thus, they cannot move in the syntax as the pronominal clitics do. Rather they are pronounced in situ, as simple, prosodically dependent elements. This gives us a handle on two important issues. One is the fact, mentioned in note

¹³ Assuming *mu go dal* to be in *v* and the subject DP, e.g. *ti*, to be in Spec v P, we need at least two higher functional projections, one for *si* to occupy the Spec of and the next for *mu go dal* to move to the head of. One of these may be T, as suggested below, but this is less than clear.

¹⁴ It is however at least conceivable that a node such as AgrS could *become* non-branching, as pronominal clitics do for us, if its complement phrase, say TP, were, in the spirit of Kayne 1994, also to move leftwards, through SpecAgrSP.

10, that the pronominal clitics form a subcluster. The other is the special behavior of *e*, the 3rd singular Aux. We hypothesize that, as argued in Franks and King (2000), *e* is introduced in T^0 while the other auxiliary clitics are introduced in AgrS⁰.¹⁵ Consider in this light the structure in (15) for the variants in (10):¹⁶

(15) [_{AgrSP} ti/tja [_{AgrS⁰} **si**]] [_{TP} [[**mu go**]_i [_{T⁰} **e**]]] [_{AspP} *t*_i + **dala** ...

Assuming that *e* remains in T^0 , and that the pronominal clitics excorporate from the highest head to which the verb moves for checking purposes (we take this to be AspP) and left-adjoin to T^0 , we obtain the proper order: Aux is at the left edge of the pronoun group, unless it is *e*, which is at the right edge.

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¹⁵ In this respect, *e* resembles the Slovenian future clitics in the *bom* series, which similarly follow the pronominal clitics and are clearly tense markers. In SC, where 3rd sg *je* also exceptionally comes last but there are tonic forms of the AgrS clitics preceded by *je* (e.g. *sam/jesam; si/jesi*), we suggest head movement of T^0 to AgrS⁰. Note also that earlier in South Slavic all auxiliaries behaved like modern *e/je* and came after the pronominal subcluster. The auxiliaries have apparently undergone a historical reanalysis, with 3sg *e/je* simply the last to change.

¹⁶ The non-boldfaced copies represent (unpronounced) traces of movement.

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