# Balkan possessive clitics

## The problem of case and category*

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A comparative study of five Balkan languages, informed by both synchronic and historical considerations, reveals that a prominent areal feature – the morpho-phonological identity of possessive and indirect object clitics – masks a range of syntactic differences. Greek possessive clitics are shown to be DPs valued for genitive case, formally distinct from indirect object clitics. Bulgarian, Macedonian, Romanian, and Serbo-Croatian possessive clitics, on the other hand, are argued to have dative case features in syntax, and thus to be the same formal entities as clausal indirect object clitics. Further distinctions exist within the latter group of languages, both with respect to the availability of dative-case valuation mechanisms inside the DP, and with respect to the mode of initial merge of clitics, as heads agreeing in case- and phi-features with dative arguments, or as DPs being valued for dative case themselves.

## 1. Overview

One of the features of the Balkan Sprachbund is the morpho-phonological identity of possessive clitics and clausal indirect object clitics. This paper addresses the question of the possessive and indirect object clitics' identity of form, focusing on the issue of case features and category at initial merge. It will become clear that the Balkan languages are, despite appearances, not uniform with respect to this phenomenon.

(i) For Greek, it is proposed that possessive clitics receive abstract genitive case and are, thus, formally distinct from clausal indirect object clitics, the latter being valued as dative. The identity between the two types of clitics is the result of a dative/genitive syncretism in the morpho-phonological expression of the distinct abstract syntactic features.

(ii) In contrast, in Bulgarian, Macedonian, Romanian, and Serbo-Croatian, possessive clitics are argued to have dative case features in syntax, and thus, be the same entities as clausal indirect object clitics. The identity of morpho-phonological form of the two types of clitics is due to their identity of formal features and not to case syncretism.

There are further distinctions within this latter group of languages, both with respect to the availability of dative-case valuation mechanisms inside the DP, and with respect to the mode of initial merge of clitics, as heads agreeing in case and phi-features with dative arguments, or as XPs being valued for dative case themselves:

(i) Bulgarian and Macedonian DPs have the syntactic means to value dative case on possessive arguments, Serbo-Croatian DPs do not, and Romanian DPs have almost completely lost the dative-case valuation mechanism. This parametric difference is responsible for the availability of DP-internal possessive clitics in Bulgarian and Macedonian, their lack in Serbo-Croatian, and their non-productivity in Romanian.
(ii) Possessive/indirect object clitics in Bulgarian, Macedonian, and Romanian are initially merged as heads, adjoined to the heads of functional projections in the extended domain of nominal/verbal predicates and agreeing in case and phi-features with (possibly non-overt) dative arguments. Possessive/indirect object clitics in Serbo-Croatian are themselves arguments receiving abstract dative case during the syntactic computation.

The above conclusions are based on comparative data from the contemporary languages. They are further reinforced by considerations of earlier stages in the histories of these languages. A syntactic position in which Modern Greek clitics can appear is shown to have been historically a pre-nominal genitive position available to all DPs up until the 15th century, supporting the proposal that Modern Greek possessive clitics are abstractly genitive and not dative. Data from Old Church Slavonic, the earliest recorded South Slavic language, reveal that unambiguously dative clitics appeared in the DP along with non-clitic genitive and dative arguments. Genitive clitics were never available in the history of the South Slavic languages. Thus, it is unjustifiable to posit that genitive clitics emerged in Macedonian and Bulgarian, in conjunction with a proposal that independently, but simultaneously, the morpho-phonological expression of the genitive case gave way to that of the dative. Rather, the conclusion drawn here, is that genitive clitics were never licensed in the Bulgarian and Macedonian DP, and that furthermore, the morpho-phonological realization of the abstract genitive case on non-clitic pronouns and full DPs did not "merge" with that of the abstract dative; instead, genitive-case valuation mechanisms were simply lost in these languages (except for "adjectival" possessives). Similarly, historical considerations reveal that, whereas Modern Serbo-Croatian does not allow possessive clitics inside the DP (these can appear only DP-externally), DP-internal dative clitics were present in the language at least until the 14th century. A single historical change in Serbo-Croatian can thus be posited – a loss of dative-case valuation mechanisms within the DP. The same factors underlie the (almost completed) loss of DP-internal possessive clitics in Romanian. If the DP-internal possessive clitics, freely available in earlier stages of these languages, had abstract genitive case, it would be unexplained why they start to disappear, given that genitive-licensing mechanisms remain available in Serbo-Croatian and Romanian.

## 2. Background

"Possessive" is a cover term for nominal expressions whose thematic interpretation is determined with respect to the head noun of another nominal. Some possessives are thematic arguments of the head noun, e.g., the 1Sg pronoun in *my arrival;* others are not, e.g., *my dog.* In either case, possessives can receive a range of theta roles, and occupy a number of syntactic positions, e.g., *my portrait, a portrait of mine, a portrait of me.*[1]

In the Balkan languages, the possessive nominal may be a "special clitic", in the sense of Zwicky (1977) – a weak pronoun which (i) lacks lexical stress and needs a phonological host to form a prosodic word; and (ii) has a syntactic distribution different from that of other pronouns. These possessive clitics have the same form, throughout the person-number-gender paradigm, as indirect object clitics in the domain of the clause. The identity of form may reflect an underlying identity of abstract case- and phi-features. Yet, it may also be a purely surface phenomenon, as most of the Balkan languages have undergone a historical change resulting in a syncretism between dative and genitive case, affecting full DPs as well as clitics. The latter position has been generally adopted by researchers on Balkan possessives (e.g., Tomić 1996a; Schoorlemmer 1998; Schick 2000; Grosu 1988, 1994; Avram & Coene 2000).

The possibility that possessive and indirect object clitics may be formally distinct syntactic objects, despite their surface identity, is reinforced by the fact that their syntactic and morpho-phonological properties in the domains of the DP and of the clause differ. For instance, in Bulgarian, Macedonian, and Romanian, these clitics exhibit second-position behavior within the DP, but not within the clause. In Greek, possessive clitics are "enclitics", i.e., they always follow their phonological host, whereas clausal clitics are "proclitics" as they precede it, at least in indicative clauses.

In this paper, however, I show that the commonly held view about Balkan possessives is not correct, and that possessive and indirect object clitics are, in fact, the same syntactic objects, at least in the Balkan Slavic languages and Romanian. This finding has important ramifications for the theory of cliticization. Immediately, the issue arises of how best to account for the divergent properties of the formally identical clitics in the two syntactic domains, the DP and the clause. Normally, pronominal clitics are assumed to be lexically specified as having (i) syntactic features, e.g., case; (ii) morphological features, such as prefix or suffix (in the sense of directionality of attachment during merger), and (iii) phonological features of relevance during the building of prosodic domains (e.g., Klavans 1995; Bošković 2001, a.o.). If indeed possessive and indirect object clitics are the same objects – the same bundles of syntactic, morphological and phonological features, placement patterns such as second-position cliticization, or proclisis vs. enclisis, are dependent on the syntactic domain of cliticization and cannot be derived on the basis of the lexical feature specification of clitics. Such a finding necessitates the re-examination of the syntactic, morphological, and phonological features of various types of clitics, and underscores the importance of the syntactic domain – a DP or a clause, and the mapping of syntactic structure to prosodic structure, in determining the placement of clitics.

This paper has a modest goal. It focuses on the issues of case specification for possessive and indirect object clitics, and of the mode of their initial merge in the syntactic structure. This is the necessary first step in addressing the important questions outlined above. By establishing that at least in some of the Balkan languages, clitics in the nominal and clausal domain are formally the same elements, it will be necessary to ask why then the cliticization patterns of the same elements are different in the two syntactic domains. The present proposals (a) open up the possibility of exploring a grammar of clitics that could not be naturally formulated before and (b) achieve a novel understanding of the parametric differences in the syntax of possessives in the Balkan languages.

The proposals developed here are framed within a particular conception of the syntax-morphology interface and assume an interpretive role for the morphological component, as in Halle and Marantz (1993) and related work in Distributed Morphology, in particular the claim that syntax manipulates abstract categories without phonological content.[2] Clitics are thus abstract bundles of features that are merged in certain syntactic positions and may undergo various movements, based on their syntactic feature specification and the general principles of syntactic computation. Specifically, clitics can be merged and/or moved as heads or as maximal categories because of their inherent category ambiguity. The hierarchical structures created by the syntactic component constitute the input to the morphological component at the point of Spell-Out. Morphology may rearrange, in a highly constrained fashion, these syntactic structures. For instance, it may perform merge of two syntactic heads while also changing their order to satisfy directionality requirements on cliticization. The morphological component is also responsible for lexicalization of the hierarchical structures, i.e., it inserts phonological pieces – the "exponents", in syntactic terminal nodes. Vocabulary items (clitics, as well as other expressions) are thus relations between exponents and the contexts for their insertion. Vocabulary items need not be fully specified for the syntactic terminals in which they are inserted. For instance, if a vocabulary item is underspecified for case, the same phonological exponent may lexicalize syntactic positions with different case specifications. The output of the morphological component is fed to a phonological component, which is responsible for the phonological realization of the lexicalized structures at the level of Phonological Form (PF). Both syntax and the post-syntactic branch to PF play a role in the surface placement of clitics.

Regarding the mechanisms for case licensing, I assume the general ideas of the Principles and Parameters framework in some of their specific instantiations in Chomsky (2001). In particular, I assume that uninterpretable features, such as case features, are not specified for a particular value (e.g., nominative, accusative, dative, genitive, or other) at the beginning of a derivation. Rather, the value of uninterpretable features is determined in the course of the syntactic computation, after the establishment of an Agree relation with specific other inflectional features. Dedicated functional heads in the extended projection of an argument's predicate are responsible for the valuation of the argument's unvalued case feature. Valuation may happen in a Spec/head configuration, in case Agree triggers the movement of the DP whose case-feature is being valued, or it may happen "at a distance", with Agree not followed by Move. Importantly, the abstractly valued case feature ("abstract case") need not have an overt expression ("morphological case") that is unique. Two different values for abstract case, e.g., dative and genitive, may receive the same overt morphological case, which is the phenomenon of case syncretism. Furthermore, the overt realization of the case feature may be done through inflection or by means of a PP (e.g., *of*-insertion in English possessives).

## 3. Possessive clitics – dative or genitive?

Possessive clitics in Bulgarian, Macedonian, Serbo-Croatian, and Romanian are morphologically dative, whereas the ones in Greek are morphologically genitive. The major concern of this section is to determine the abstract case value of these clitics. Once it is established that possessive clitics in the Balkan Slavic languages and Romanian are abstractly dative, rather than genitive, the question of the distinct phonological, morphological, and syntactic constraints of the placement of dative clitics in the domain of the DP and of the clause can be meaningfully addressed.

### **3.1** The morpho-phonological identity of possessive and indirect object clitics

Possessives may appear within the DP where they are thematically interpreted ("internal possessives"), or outside of this DP ("external possessive"), following the terminology of Vergnaud and Zubizaretta (1992).

Internal possessive clitics are found in Bulgarian, Macedonian, and Greek, not in Serbo-Croatian, and not productively in Romanian. Serbo-Croatian does have possessive clitics, but these obligatorily appear externally to the DP.[3] In Romanian, DP-external possessive clitics are strongly preferred to the DP-internal ones, or are even obligatory in some cases. In these Balkan languages, the DP-internal and DP-external possessive clitics have the same morpho-phonological form as clausal-domain indirect object clitics, as a comparison of the (a) and (b) examples in (1)–(5) illustrates.

(1) a. *kniga-ta mu* [Bulgarian]
book-the he.cl.dat
'his book'
b. *Az mu pomognax.* [Bulgarian]
I he.cl.dat helped
'I helped him.'

(2) a. *žena mi* [Macedonian]
wife I.cl.dat
'my wife'
b. *Mi se stori…* [Macedonian]
I.cl.dat refl.cl seemed
'It seemed to me…'

(3) a. *carte-a i* [Romanian]
book-the 3sg.cl.dat
'his/her book'
b. *I*-am scris. [Romanian]
3sg.cl.dat-have.1sg written
'I wrote to him/her'

(4) a. *to vivlio tu* [Greek]
the book he.gen.cl
'his book'

b. *Tu eftiaksa ena keik* [Greek]
he.GEN.CL made.1SG a cake
'I made him a cake.'

(5) a. *U novinama mi se opet pojavila slika.* [Serbo-Croatian]
in paper I.CL REFL.CL again appeared picture
'My picture came out again in the paper'.

b. *Vesna mi ga je kupila.* [Serbo-Croatian]
Vesna I.CL it is bought
'Vesna bought it for me.'

The identity of form in the possessive and indirect object clitics obtains for all person-number-(gender) combinations (i.e., 2Sg possessive and indirect object clitics are identical, as are 3Sg masculine, 3Sg feminine clitics, etc.). The four languages with DP-internal clitics – Bulgarian, Macedonian, Romanian, and Greek – have undergone a loss of either genitive or dative morphological case, with the remaining case "taking over" as the morpho-phonological expression of both genitive and dative abstract cases. In Bulgarian, Macedonian, and Romanian, the morphological genitive was lost and was replaced by the morphological dative, whereas in Greek the morphological dative gave way to the morphological genitive form. The case syncretism is not a characteristic of the clitics alone, but extends to full DP arguments, and in Greek, to strong pronouns as well. In Serbo-Croatian, a morphological distinction between dative and genitive case is still preserved. Given the case syncretism in all of the Balkan languages but Serbo-Croatian, the morphological case of the possessive clitics cannot be taken at face value.

As in any case of morpho-phonological identity of expressions from distinct syntactic domains, there are two ways to account for the syncretism:

(i) complete or partial identity of formal features, such that the shared features are realized by a single exponent; or
(ii) lack of relevant common features, with the surface identity resulting from accidental homophony or from radical underspecification (an "elsewhere" condition).

With respect to case syncretism in particular, assuming case features to be privative, two nominals can have:

(i) the same case feature, realized by a single exponent specified for this case feature; or
(ii) distinct case features, realized by a single form because of homophony of the two exponents or because of complete underspecification for case of the single exponent.

With these considerations in mind, two hypotheses may be formulated for each of the Balkan languages, concerning the morpho-phonological identity of its possessive and indirect object clitics. It may be the case, that possessive clitics have the same abstract dative case feature as indirect object clitics in the domain of the clause.[4] Or, it may be the case that possessive clitics are valued with an abstract genitive case, and are therefore formally distinct from indirect object clitics.

In precise terms, under the first hypothesis, both sets of clitics consist of a bundle of phi-features (person, number, and, for the 3rd person, gender features), and of dative case features. The identical featural content of the syntactic terminal, dative case included, is naturally realized by the same morpho-phonological exponent. Consider as an illustration (6) and (7), where an exponent, *A*, is the spell-out for a 1Sg dative clitic <1Sg.Dative>, whether possessive or indirect object clitic. (*A* would be *mi* in Romanian, Bulgarian, Macedonian, and Serbo-Croatian, and *mu* in Greek). *A* could be fully specified as [1Sg.Dative], as in (6) or it can be underspecified as [1Sg], as in (7). In the latter case, possessive and indirect object clitics would still be realized by *A*, given the availability of a *B* exponent which is more highly specified and, hence, needs to be inserted in accusative syntactic environments.[5] Under the hypothesis that possessive clitics are valued dative in the syntax, if the Balkan languages did not have a dative/genitive syncretism, their possessive clitics would be realized as unambiguously morphologically dative.

(6) a. Vocabulary Item for a possessive/indirect object clitic
*A* – 1SG.DATIVE
b. Spell-out of possessive/indirect object clitics
<1SG.DATIVE> / __ {V or N} → *A*

(7) a. Vocabulary Items for clitics
*B* – 1SG.ACCUSATIVE
*A* – 1SG
b. Spell-out of clitics
<1SG.ACCUSATIVE> → *B*
<1SG.DATIVE> → *A*

Under the second hypothesis, possessive clitics have abstract case features distinct from indirect object clitics, but the two receive identical morpho-phonological expression because of the independently attested syncretism (as in (8)–(9)). This option is adopted for Bulgarian in Tomić (1996a), Schoorlemmer (1998), and Schick (2000), for Macedonian in Tomić (1996a), and for Romanian, in Grosu (1988, 1994), Avram and Coene (2000).[6] Under this hypothesis, if the languages did not have dative/genitive case syncretism, possessive clitics in the DP would be realized as morphologically genitive, as they are posited to be abstractly genitive. There are two ways to implement the second hypothesis. The identical surface form of possessive and indirect object clitics could be the result of accidental homophony (as in (8)). That is, there could be two exponents $A_1$ and $A_2$ that happen to be identical. However, homophony is unlikely, given the complete identity of possessive and indirect object clitics throughout the paradigm. Rather, the syncretism effect is better achieved through underspecification for case features of the relevant morpho-phonological exponents (as in (9)). It can be posited that *A* is underspecified for case, whereas other clitic vocabulary items are specified as accusative. In accusative syntactic contexts, the more highly specified exponents will win over *A*. *A* will be suitable for insertion only in syntactic terminals not specified as accusative. These would be precisely those terminals specified as dative or genitive, since none of the Balkan languages makes a further case distinction in clitics (again, we are putting nominative aside).

(8) a. Vocabulary Item for a possessive clitic
$A_1$ – 1SG.GENITIVE
Vocabulary Item for an indirect object clitic
$A_2$ – 1SG.DATIVE
$A_1 = A_2$
b. Spell-out of possessive and indirect object clitics
<1SG.GENITIVE> → $A_1$
<1SG.DATIVE> → $A_2$

(9) a. Vocabulary Items for clitics
1SG.ACCUSATIVE – *B*
1SG. – *A*
b. Spell-out of clitics
<1SG.ACCUSATIVE> → *B*
<1SG.DATIVE> → *A*
<1SG.GENITIVE> → *A*

Finally, while based on the data we have seen so far, the Balkan languages appear to be uniform as far as possessive clitics are concerned, it is possible that different analyses are in fact appropriate for the individual languages. Indeed, here I will defend the position that while the first hypothesis (abstract dative case) is correct for Bulgarian, Macedonian, Romanian, and Serbo-Croatian, the second one (abstract genitive case) is correct for Greek.

The facts of Serbo-Croatian shed some light on the issue of whether possessive clitics are valued dative or genitive in the syntax, as this language does not exhibit a dative/genitive syncretism. Yet Serbo-Croatian also complicates the picture, as it does not have possessive clitics within the DP, in contrast to the other Balkan languages. Neither a genitive nor a dative clitic can be an argument in the DP, as example (10) shows.

(10) **kuća* {*mu* / *ga*} [Serbo-Croatian]
house he.CL.DAT / he.GEN.CL
'his house'

The fact that genitive clitics are prohibited as possessors in the DP in the only Balkan language where we can independently verify their distinct status from dative clitics, casts serious doubt on the validity of the second hypothesis outlined above. Furthermore, the possessive clitics available DP-externally in Serbo-Croatian, are unambiguously dative. A genitive clitic is ungrammatical in this position (see (11) vs. (5a)).

(11) **U novinama me se opet pojavila* [Serbo-Croatian]
in papers.LOC I.GEN.CL ACC.REF.CL again appeared
*slika.*
picture
'My picture came out again in the paper'.

### 3.2 Historical considerations

The unacceptability of the dative clitic in (10) needs to be explained. We could entertain a variant of the first hypothesis that posits partial identity between possessive and indirect object clitics. It could be that the genitive/dative syncretism is in fact a licensing factor for the availability of DP-internal possessive clitics in the Balkan languages. Under this view, the possessive clitics have abstract dative features, but as possessive arguments they also have to be genitive marked. The double case is then resolved only in instances of dative/genitive syncretism.[7] Such a hypothesis is refuted, however, once we look at the history of some of these languages. Possessive clitics within the DP were available in Old Serbo-Croatian, and they were unambiguously, dative, as made clear by the lack of genitive/dative syncretism.

(12) a. *dragomu mi priětelu* [Old Serbo-Croatian]
dear.DAT I.CL.DAT friend.DAT (13th C; Dezső 1982: 236)
'to my dear friend'
b. *vъ slavni dvorъ kraljevstva*
in the-great.ACC court.ACC kingdom.GEN
*mi* [Old Serbo-Croatian]
my.CL.DAT (14th C; Dezső 1982: 237)
'in the great court of my kingdom'

Similarly, Old Church Slavonic – the earliest recorded South Slavic language, which, for practical purposes, may be considered the ancestor of Bulgarian, Macedonian, and Serbo-Croatian – had unambiguously dative clitics within the DP, as in (13a). Non-clitic dative pronouns and dative full DPs could also appear in the DP, as in (13b, c).[8]

Old Church Slavonic also had genitive-valued possessives, which showed certain restrictions as to animacy and branching structure. Genitive pronouns, which did not exhibit a clitic/non-clitic distinction, could be possessive arguments in Old Church Slavonic (see (14a)). Technically, only 3rd person pronouns could appear in the "ordinary" genitive case, as in (14a); 1st and 2nd person pronouns had to appear in a special "adjectival" genitive. Genitive full DPs were also available (see (14b)) though these were restricted to inanimate DPs and branching DPs, i.e., DPs with more than one constituent. Single-word animate DPs had to appear in the 'adjectival' genitive case (see section 3.5 for further discussion).

(13) a. *snъ ti* [Old Church Slavonic]
son you.cl.dat (Duridanov et al. 1993: 241)
'your son'

b. *rabъ jemu* [Old Church Slavonic]
slave he.non-cl.dat (Duridanov et al. 1993: 536)
'his slave'

c. *krai rizě* [Old Church Slavonic]
end shirt.dat (Duridanov et al. 1993: 461)
'the end of the shirt'

(14) a. *sъmotri že mi zъloděistvo* [Old Church Slavonic]
consider part I.cl.dat crime (Lunt 2001: 149)
*ixъ*
they.non-cl.gen
'consider (for me) their crime'

b. *na prěstolě slavy* [Old Church Slavonic]
on throne.loc fame.gen (Duridanov et al. 1993: 428)
*svoeje*
refl.poss.gen
'on the throne of his fame'

The historical data suggest that two distinct possessive structures were available in Old South Slavic. In one structure, the possessive nominal, whether a clitic, a non-clitic pronoun, or a full DP, was valued dative case. In the other structure, the possessive argument – a non-clitic pronoun or a full DP – was valued genitive case (there were no genitive clitics).

It may be objected that the occurrence of both dative and genitive arguments in the DP is not a reflection of two distinct syntactic structures, but merely the result of overlapping patterns during the historical change that is behind the dative/genitive syncretism. In other words, all structures could be posited to be unambiguously genitive, but some are morpho-phonologically realized by the dative exponents – a variability that exists in the texts because of a change in progress. This, however, is unlikely for a number of reasons. The dative possessors are extremely common even in the earliest texts, even before the likely beginning of the historical change that is behind the syncretism. Furthermore, there are grammatical relations within the DP that are always realized by a genitive, and never by a dative (Duridanov 1993: 463). We also may point out, that the existence of dative possessors along with genitive possessors is a feature of Indo-European.

Thus, evidence from the history of the Balkan Slavic languages suggests that a dative/genitive syncretism is not necessary for the presence of possessive clitics within the DP. The historical facts also make it unlikely that in the modern Balkan languages (at least the Slavic ones), possessive clitics have abstract genitive case and are identical in form to clausal dative clitics simply because of the dative/genitive syncretism. The possessive clitics in the Slavic languages were historically dative, as the earliest records attest. Positing that the abstract case of possessive clitics became genitive, as a result of a syntactic change, just as the morpho-phonological expressions of the dative and the genitive cases collapsed, is unmotivated and would be very difficult to justify.

### **3.3** Possessor raising of clitics

Another facet of the distribution of possessive clitics is their ability to appear external to the DP, as already seen in the case of Serbo-Croatian. External possessive clitics are available in Bulgarian, Macedonian, and Romanian as well, but not in Greek.[9] The availability/non-availability of DP-external clitics is illustrated in the examples below (the Serbo-Croatian example (5a) repeated for convenience). (The Macedonian example is from Baerman & Billings 1998, and the Romanian example is from Avram & Coene 2000).

(15) *Az im vidjax* [$_{\text{DP}}$ *nova-ta kola*]. [Bulgarian]
I they.CL.DAT saw.1SG new-the car
'I saw their new car.'

(16) *Si mu gi zel* [$_{\text{DP}}$ *pari-te*]. [Macedonian]
be.2SG he.CL.DAT they.CL.ACC taken money-the
'You have taken his money'

(17) I-am zărit [$_{\text{DP}}$ *chipul*] *in mulțime.* [Romanian]
3SG.CL.DAT-have.1SG seen face-the in crowd
'I saw her face in the crowd.'

(18) *U novinama mi se opet pojavila* [Serbo-Croatian]
in papers.LOC I.CL.DAT refl.CL.ACC again appeared
[$_{DP}$ *slika*].
picture
'My picture came out again in the paper'.

(19) **Tus idha* [$_{DP}$ *to kenuryio aftokinito*]. [Greek]
they.CL saw.1SG the new car
'I saw their new car.'

Whether the clitic appears internally or externally to the DP seems to be "optional" in Bulgarian and Macedonian, that is, there are no *obvious* interpretive, syntactic or other factors that determine one or the other position.[10] In Romanian, the DP-external placement of the clitic is the preferred option; the DP-internal placement is essentially restricted to the singular paradigm, in particular 3rd person, and even there is "felt as outdated, formal, and poetic" (Avram & Coene 2000: 158).

I will not offer here a detailed account of possessive clitic "raising". There have been numerous proposals in the literature regarding the more general phenomenon of possessor raising, addressing in particular one central puzzle – that the DP-external possessor has the syntactic behavior of a clausal argument but the interpretation of an argument within the possessee DP. The attempts at solving the puzzle have been of two types. One advocates that the possessor is an argument of the verb (e.g., an applicative). The possessive interpretation arises through binding of an anaphoric element in the possessee (e.g., Borer & Grodzinsky 1986, for Hebrew; Vergnaud & Zubizaretta 1992, for French; Kempchinsky 1992, for Spanish). The second line argues that the possessor is an argument of the possessee DP; it originates DP-internally and moves to a position typically occupied by verbal arguments (e.g., Landau 1999, for Hebrew). Similarly, previous analyses of Balkan possessive clitics that address the phenomenon of "raising" have followed one or the other approach. Advocates of base-generation of external possessive clitics are Schürks and Wunderlich (2000) for Bulgarian, and Schick (2000a) for Bulgarian and Macedonian. A movement analysis for external possessive clitics is proposed in Avram and Coene (2000) for Romanian, and Stateva (2002) for Bulgarian.

Which of the two approaches to possessor 'raising' is correct is not of central concern for this paper (although some suggestions will be made later, as part of a general comparative account of the clitic systems of the Balkan languages). Of particular relevance at this point is the fact that possessor "raising" provides additional evidence in support of the position that at least in Bulgarian, Macedonian, Romanian, and Serbo-Croatian possessive clitics are valued in syntax for dative case, rather than genitive. It appears to be generally the case that in languages with both dative and non-dative possessors,[11] only the dative ones "raise" out of the DP.[12] Familiar examples include French, Spanish, German, and Hebrew, where genitive possessors can only appear DP-internally, whereas dative possessors may be DP-external (e.g., Vergnaud & Zubizarreta 1992; Kempchinsky 1992; Krause 2001; Borer & Grodzinsky 1986; Landau 1999). Similarly, in Hungarian nominative possessors are restricted to a DP-internal position, but dative ones are not (e.g., Szabolcsi 1983, 1994). As an illustration of the dative/non-dative distinction in possessor raising, consider the Hungarian examples from Szabolcsi (1994); more examples of the case-restriction can be found in the cited literature.

(20) a. *a Mari kalap-ja-i* [Hungarian]
the Mari.NOM hat.POSS-PL(-3SG)
'Mari's hats'
b. *Mari-nak a kalap-ja-i*[13] [Hungarian]
Mar-DAT the hat-POSS-PL(-3SG)
'Mari's hats'
c. **Mari fekete volt* [$_{DP}$ *a kalap-ja* ] [Hungarian]
Mari.NOM black was the hat-POSS(-3SG-NOM)
'Mari's hat was black.'
d. *Mari-nak fekete volt* [$_{DP}$ *a kalap-ja* ] [Hungarian]
Mari-DAT black was the hat-POSS(-3SG-NOM)
'Mari's hat was black.'

In the same vein, as pointed out earlier, external possessive clitics in Serbo-Croatian are unambiguously dative, genitive clitics being ungrammatical (cf. (5a) vs. (11)).

The phenomenon of possessor "raising" offers further evidence in support of the proposal that external possessive clitics in Bulgarian, Macedonian, Romanian, and Serbo-Croatian have abstract dative case features. DP-external possessive clitics have an identical distribution to that of clausal indirect object clitics. In Bulgarian, Macedonian and Romanian clausal object clitics are hosted by the verb, that is, they merge with the verb to form a complex head (in the syntax, or in the post-syntactic component), and form one prosodic word with it. In Serbo-Croatian clausal object clitics are second-position clitics – they appear after the first prosodic word or the first constituent in the intonational phrase (the clause, in the typical case). Examples of the placement of clausal clitics in these languages are very well known and thus are not provided here (see e.g., Tomić 1996b; Franks & King 2000; Bošković 2001, among many others, for discussion of clausal clitics in Balkan Slavic). Correspondingly, in Bulgarian, Macedonian and Romanian, external possessive clitics are syntactic associates of the verb, while in Serbo-Croatian they behave as second-position clitics. Placing the clitic in any other position than the one illustrated in (15)–(18) results in ungrammaticality.

External possessive clitics observe even further distinctions found among the verbal clitics. In Romanian, but not in Bulgarian, clausal object clitics may appear initial in the intonational phrase. Thus, whereas in the Romanian example in (17) the possessive clitic is acceptable at the beginning of its clause, pro-drop in the Bulgarian example in (15) would strand the clitic without phonological support to its left and would lead to ungrammaticality. In Macedonian, as Tomić (2000) observes, verbal clitics can appear clause-initially with verbal predicates, but not with nominal predicates. Possessive clitics observe this distinction as well (O. Tomić, p.c.), as (21) illustrates:

(21) a. *Mu* *gi* *zede* [$_{\text{DP}}$ *pari-te*]. [Macedonian]
he.CL.DAT they.CL.ACC took money-the
'You/(s)he took his money.'
b. **Mu* *e* [$_{\text{DP}}$ *tatko*]. [Macedonian]
him.CL.DAT is father
'He is his father.'

Facts like these suggest that external possessive clitics in Bulgarian, Macedonian, and Romanian have the properties – phonological, morphological, and syntactic – of indirect object clitics.

Thus, we have seen evidence that DP-external clitics have abstract dative case features. In Section 3.3, we saw that, at least in the Balkan Slavic languages, DP-internal clitics were historically dative and not genitive. The more parsimonious hypothesis then is the first one outlined in Section 3.2, namely, that possessive clitics are valued as dative.

### 3.4 Possessive clitics, non-clitic pronouns, and non-pronominal DPs

We also need to consider the behavior of possessive clitics in comparison to that of non-clitic pronouns and full DPs. This paper does not attempt to provide a comprehensive analysis of the syntax of non-clitic possessors in the Balkan DP. These are examined only as far as they shed light on the status of possessive clitics, and in particular, the possessive clitics' case features. As we will find out, in all of the languages considered, non-clitic pronouns are valued genitive. In Bulgarian, Macedonian, Serbo-Croatian and Romanian the arguments in support of this conclusion may be less straightforward, than they are in Greek. Yet the proposal that non-clitic pronouns have genitive abstract case in the Balkan Slavic languages and Romanian still offers the best account of the empirical facts, both synchronic and diachronic. In these languages, genitive case on non-clitic pronouns is always associated with a particular inflection and with animacy restrictions. This genitive inflection, and the syntactic position associated with its licensing, is also available to full DPs, but not to clitics. Only in Greek, genitive case is available to pronominal and non-pronominal DPs alike, with clitics sharing the distribution of other possessives.

While the facts of the case-licensing of non-clitic pronouns and full DPs in the Balkan Slavic languages and Romanian by themselves may not be conclusive as to the case features of the clitic pronouns in these languages, they serve to highlight the relevance of Greek possessive pronoun placement for the analysis of Greek clitics. The discussion of the distribution of non-clitic possessives in Bulgarian, Macedonian, Serbo-Croatian and Romanian also sets the stage for consideration of the facts of clitic doubling in these languages in Section 3.6.

### **3.4.1** *Bulgarian and Macedonian*

Whereas in Old Church Slavonic non-clitic dative and genitive pronouns could appear within the DP, as we saw in examples (13b) and (14a), this is not an option in contemporary Bulgarian and Macedonian. In these languages, non-clitic possessive pronouns have a special, "adjectival"[14] inflection: like adjectives, they agree in gender and number with the head noun, and may appear attributively as well as predicatively. Non-clitic pronouns that have the same form as indirect object pronouns may not appear as possessives in the DP. The facts are illustrated below. (Examples (23a, b) are from Tomić 1996a.)

(22) a. *nego-(o)va-ta* *kniga* [Bulgarian]
he.non-cl-poss.f.sg-the book.f.sg
'his book'

b. *kniga-ta* {(* *na* *nego*) / *mu* } [Bulgarian]
book-the to he.non-cl he.cl.dat
'his book'

c. *Pomognax* {*NA* *NEGO*[15] / *mu*} [Bulgarian]
helped.1sg to him.non-cl he.cl.dat
'I helped him.'

(23) a. *nejz-ini-ot* *sin* [Macedonian]
she.non-cl-poss.m.sg-the son.m.sg
'her son'

b. *sin* {(* *nejze*) / *í*} [Macedonian]
son she.non-cl.dat she.cl.dat
'her son'

c. *i* (*nejze*) *í* *reče.*[16] [Macedonian]
and she.non-cl.dat she.cl.dat told.3sg
'He/she also told her.'

The special "adjectival" inflection on non-clitic possessive pronouns in Bulgarian and Macedonian is not available to all DPs. Only pronouns (see (22a)–(23a)), and, to a limited extent, non-branching animate proper names[17] and certain animate relational nouns[18] (see (24)) can appear with this inflection.[19]

(24) a. {*Ivan-ovi-te* / *čičo-(o)vi-te*} *kăšti* [Bulgarian]
Ivan-POSS.PL-the uncle-POSS.PL-the house.PL
'Ivan's/my uncle's houses'

b. **Pariž-ovi-te kăšti* [Bulgarian]
Paris-POSS.PL-the house.PL
'the houses of Paris'

cf. *kăšti-te na Pariž* [Bulgarian]
house.PL-the to Paris
'the houses of Paris'

c. **prezident-ovi-te kăšti* [Bulgarian]
president-POSS.PL-the house.PL
'the president's houses'

cf. *kăšti-te na prezidenta* [Bulgarian]
house.PL-the to president-the
'the president's houses'

Looking at the history of Bulgarian and Macedonian proves instructive. Non-clitic possessive pronouns were derived by the affixation of a possessive suffix to the genitive form of the pronoun (Duridanov et al. 1993:240). As the facts concerning the origins of the adjectival possessive form appear not to be generally known or readily available, I will briefly present them here. Old Church Slavonic possessive pronouns for 1st and 2nd person were formed by the affixation of a possessive suffix *-jь* (M.Sg) to a genitive stem. In the case of the plural pronouns, the result is transparent (see (25a)). In the case of the singular pronouns and the reflexive, the possessive suffix was added not to the then-contemporary genitive form (*mene* '1Sg.Gen', *tebe* '2Sg.Gen', *sebe* 'Refl') but to an older genitive stem (see (25b)).

(25) a. *nasъ-jь → našь* *vasъ-jь → vašь* [Old Church Slavonic]
1Pl.GEN-POSS.M 2Pl.GEN-POSS.M (Duridanov et al. 1993:240)
'our' 'your'

b. *moi-jь → moi* *tvoi-jь → tvoi* [Old Church Slavonic]
1SG.GEN-POSS.M 2SG.GEN-POSS.M (Duridanov et al. 1993:240)
'my' 'your'
*svoi-jь → svoi*
REFL.GEN-POSS.M
'self's'

It appears to be the case that the 'ordinary' genitive forms of non-clitic pronouns (e.g., *mene* '1Sg.Gen', *nasъ* '1Pl.gen') were not used as possessives in the DP; instead, the 'adjectival' genitive forms (e.g., *moi* '1Sg.Gen.Poss', *našь* '1Pl.Gen.Poss') were used.

The 3rd person pronouns[20] had no 'adjectival' possessive form, only an 'ordinary' genitive one (see (14a)). Subsequently in the history of South Slavic, an 'adjectival' possessive came into use, replacing the 'ordinary' genitive for 3rd person non-clitic pronouns. This 'adjectival' possessive was formed by the affixation of the possessive suffixes *-ovъ* and *-inъ* (masc.sg) to the genitive non-clitic pronouns (see (26)).[21]

(26) a. *ego* [Old Church Slavonic] *-ovъ* → *negov* [Bulgarian], [Macedonian]
3sg.m.gen poss.m
'his'
b. *ee* [Old Church Slavonic] *-inъ* → *nein* [Bulgarian],
3sg.f.gen poss.m *nejzin* [Macedonian]
'her'
c. *těxъ* [Old Church Slavonic] *-inъ* → *texen* [Bulgarian]
3pl.gen poss.m
'their'
d. *ixú* [Old Church Slavonic] *-ovú* → *nixov* [Macedonian][22]
3pl.anaph.gen poss.m
'their'

In other words, as (25) and (26) show, the modern Bulgarian and Macedonian possessive non-clitic pronouns are historically derived from genitive-valued forms, further inflected with a possessive suffix.

The possessive suffixes *-jь*, *-ovъ* and *-inъ* could also be added to animate non-branching full DPs, to form possessive adjectives (Duridanov et al. 1993: 214–215, 219–221; Lunt 2001: 179–180). Just like the case of the pronouns, these forms had to be used, where available, instead of the ordinary 'genitive' (Lunt 2001: 146).

(27) a. *solomonъ*: *solomonjь* */solomonovъ* [Old Church Slavonic]
Solomon.nom Solomon.poss Solomon.poss (Lunt 2001: 180)
'Solomon's'
b. *julijana:* *julijaninъ* [Old Church Slavonic]
Juliana.nom Juliana.poss (Lunt 2001: 180)
'Juliana's'

The conclusions of our historical exposition are that "adjectival" possessive inflection was associated with genitive non-clitic pronouns. An argument can be made that in the modern languages this is the last remnant of genitive case-valuation mechanisms.

In modern Bulgarian and Macedonian, the syntactic position licensing the "adjectival" possessive is strictly pre-nominal.[23] Post-nominally, full DPs (including animate proper names and relational nouns) have to be introduced by a preposition. No animacy restrictions apply to the post-nominal possessives.[24]

(28) a. {*Ivan-ova-ta* /*čičo-(o)va-ta*} *kniga* [Bulgarian]
Ivan-POSS.F.SG-the uncle-POSS.F.SG-the book.F.SG
'Ivan's/my uncle's book'
b. **kniga-ta* {*Ivan-ova* / *čičo-(o)va*} [Bulgarian]
book.F.SG-the Ivan-POSS.F.SG uncle-POSS.F.SG
'Ivan's/my uncle's book'
c. *kniga-ta* {*na Ivan* /*na čičo*} [Bulgarian]
book.F.SG-the to Ivan to uncle
'Ivan's/my uncle's book'

The 'adjectival' possessive inflection is also found in the non-Balkan Slavic languages, as the Russian examples below illustrate. There, it is similarly restricted to animate proper names, relational nouns, and pronouns. A distinct genitive case is available to post-nominal DPs, and no restrictions as to animacy apply (see also Schoorlemmer 1998). Pronouns can occur only with the "adjectival" inflection. The generally free order of Russian allows adjectival possessives to appear post-nominally (e.g., *kniga Petina* 'Petja's book'). I will thus take it to be the case that the post-nominal "adjectival" possessive is in a syntactic position distinct from the one licensing "non-adjectival" genitive case.

(29) a. *Petina* *kniga* [Russian]
Petja.POSS.F.SG book.F.SG
'Petja's book'
b. *kniga* *Peti*
book.F.SG Petja.GEN
'Petja's book'

(30) a. *tvoja* *kniga* [Russian]
your.POSS.F.SG book.F.SG
'your book'
b. **kniga* *tebja*
book.F.SG you.GEN
'your book'

The different behavior of possessive clitics compared to non-clitic pronouns and full DPs in Bulgarian and Macedonian can be naturally accounted for under the following proposal. Pre-nominal possessives inside the DP are valued genitive in the course of the syntactic derivation. The morphological realization of this genitive case is limited to a certain class of animate DPs, namely proper names, relational nouns, and non-clitic pronouns. I further assume that the genitive case of pre-nominal possessive DPs is valued in a structural subject position lower than $D^0$ (see Szabolcsi 1994; Schoorlemmer 1998, among others), named here FgP. Subsequent obligatory raising to a higher functional projection, AgrP, is responsible for agreement with the head noun. In addition to its full set of interpretable phi-features, the possessive DP also has uninterpretable gender and number features, which get valuated by Agr, after the obligatory movement.[25] So far, things are straightforward and uncontroversial.

(31) $[_{DP}$ D $[_{AgrP}$ PossDP$_i$ $[_{FGP}$ t$_i$ [… $[_{NP}$ N ]]]]

I further propose that Spec, FgP is the only genitive-licensing position in the Bulgarian and Macedonian DP. This allows for a uniform treatment of non-clitic pronouns in the history of these languages and in contemporary Russian and Serbo-Croatian. Recall that centuries ago, only 3rd person pronouns could receive genitive case in position other than Spec, FgP (see (14a)) and subsequently these too had to follow the pattern of 1st and 2nd person pronouns (see (26) compared to (25)). Similarly, in contemporary Russian, genitive case is available to pronouns only in Spec, FgP, to be followed by obligatory movement to Spec, AgrP (see (30)). In Serbo-Croatian the facts are the same (as illustrated further below). So, whereas in Russian and Serbo-Croatian genitive case continued to be available to full DPs in position other than Spec, FgP (see (29) and (44)), Bulgarian and Macedonian lost this grammatical possibility altogether.

This further allows us to dispense with the claim that Bulgarian and Macedonian saw the emergence of case syncretism between the morpho-phonological expression of dative and genitive case. Rather, these languages simply lost the syntactic mechanisms for genitive-case licensing (other than in Spec, FgP).

Given this proposal, if pronouns can occur post-nominally, they must not be genitive. Now, note that when "non-adjectival" non-clitic possessive pronouns are doubled by a clitic, they become acceptable (as in (32); compare with (22b) and (23b)). This fact suggests that the possessive clitic is involved in mediating the case-valuation of the post-nominal non-clitic pronoun. In other words, if the clitic is to enter a chain with the non-clitic pronoun in (32), then since the pronoun is not valued genitive, the clitic must not be genitive as well.

| | | | | | | |
|---|---|---|---|---|---|---|
| (32) | a. | *kniga-ta* | *mu* | *na* | *nego* | [Bulgarian] |
| | | book-the | he.CL.DAT | to | him.NON-CL | |
| | | 'his book' | | | | |
| | b. | *sin* | *í* | (*na* | *nea*)[26] | [Macedonian] |
| | | son | she.CL.DAT | to | her.NON-CL | |
| | | 'her son' | | | | |

It is predicted that clitics will not be able to co-occur with "adjectival" possessives, because of a case mismatch. This prediction is upheld, as illustrated in (33).[27]

(33) a. *negovi-te* (*mu) *knigi* [Bulgarian]
his.NON-CL.POSS.PL-the he.CL.DAT books
'his new books'

b. *nejzini-ot* (*í) *sin* [Macedonian]
her.NON-CL.POSS.M.SG-the she-CL son.M.SG
'her son'

In sum, the facts of the distribution of non-clitic pronouns suggest that postnominal possessives in Bulgarian and Macedonian are instance of dative arguments. The abstract dative case valued in the post-nominal position is realized the same way the abstract dative valued in the domain of the clause is realized – as a PP (or DP in the case of Macedonian pronouns). Patterns of clitic-doubling or lack thereof, as in (32)–(33) suggests that clitics are dative-marked.

While possessive clitics share none of the constraints imposed on possessives in Spec, AgrP, they have some constraints of their own. The facts of Bulgarian and Macedonian possessive clitic placement are fairly well known.[28] The clitics always appear in a fixed position – right adjacent to the definite article or a demonstrative. Here we need not expand on this issue, as it does not bear immediate relevance to the problem at hand. Briefly, the requirement that $D^0$ be [+def] is very strict: indefinite articles, strong or weak determiners, may not be hosts for the possessive clitic (see (34)–(35), (37)–(38)). This restriction does not hold for non-clitic possessive pronouns, which are licensed in both definite and indefinite DPs (see (36)). Because the definite article itself has a second-position behavior within the DP in Bulgarian and Macedonian, possessive clitics, when hosted by the article, end up in second-position, after the first constituent. The examples below illustrate the basic facts. The clitic must appear in the position shown.[29]

(34) a. {vsički-*(te) / pet-*(te)} *mu* *novi* *knigi* [Bulgarian]
all-the five-the he.CL.DAT new books
'all his new books' / 'his five new books'

b. novi-*(te) *mu* *knigi* [Bulgarian]
new-the he.CL.DAT books
'his new books'

c. knigi-*(te) *mu* [Bulgarian]
books-the he.CL.DAT
'his books'

(35) a. {*tazi* / *onazi*} *mu* *nova* *kniga* [Bulgarian]
this / that he.CL.DAT new book
'this/that new book of his'

b. {**edna* / **njakoja*} *mi* *bratovčedka*
one some I.CL.DAT cousin
'one of my cousins'

(36) a. *vsički*(*-te*) / *pet*(*-te*) *negovi* *novi* *knigi* [Bulgarian]
all-(the) five-(the) his.NON-CL.POSS new books
'all his new books' / '(the) five new books of his'

b. *negovi*(*-te*) *novi* *knigi* [Bulgarian]
his.NON-CL.POSS-(the) new books
'(the) new books of his'

(37) a. *prva-**(*ta*) *mi* *žena* [Macedonian]
first-the I.CL.DAT wife
'my first wife'

b. *sakana-**(*ta*) *mi* *prva* *žena* [Macedonian]
beloved-the I.CL.DAT first wife
'my beloved first wife'

c. *žena* *mi* [Macedonian]
wife I.CL.DAT
'my wife'

(38) **edna* *mi* *bratučetka* [Macedonian]
one I.CL.DAT cousin
'one of my cousins'

The specifics of the fixed distribution of possessive clitics are not of immediate concern here, as they could reflect a derived position for the clitic. It is logically possible that the clitic is merged initially the same way a non-clitic pronoun is, licenses case in the same position as the possessive 'adjectival' pronoun, and then moves further, as a head, and adjoins to a [+def] $D^0$. This, in fact, is the analysis proposed in Tomić (1996a), Schoorlemmer (1998) for Bulgarian possessive clitics. Thus, the particularities of the placement of the clitic do not constitute evidence for (or against) the proposal developed here, that, unlike pre-nominal 'adjectival' possessives, possessive clitics are not genitive-marked. Yet the placement of the clitics in Bulgarian, Macedonian, and as we will see, in Romanian, is in sharp contrast with that of Greek, as will become clear shortly. It thus underscores the need for giving the clitics in the two groups of languages a distinct analysis. It also will motivate the proposal that possessive clitics in Bulgarian and Macedonian are merged as adjuncts to a functional head and not as arguments in a theta-position.

### 3.4.2 *Romanian*

Non-clitic pronouns in Romanian have special properties as well. Like the corresponding possessives in the Slavic languages, they have a special possessive stem and adjectival inflection, agreeing with the head noun in number, gender, and case (see (39a)). Non-pronominal DPs also appear post-nominally, but they do not agree with the head noun. Full DPs are inflected for case, as in (39b), if they are adjacent to the definite article. In case of non-adjacency, they have to be preceded by a "particle" that consist of an invariable part *a*-, followed by the nominative forms of the definite article inflected for number and gender (*al*-M.Sg., *a*-F.Sg, *ai*-M.Pl, *ale*-F.Pl) and agreeing with the head noun (see (39c) vs. (39d)). The status of the 'particle' is debatable. For instance, Grosu (1998) analyzes it as a preposition incorporating the definite article. Dobrovie-Sorin (2001) proposes that it is a DP consisting of a definite article, a nominal proform, and the usual post-nominal genitive DP; under her analysis (39d) has the structure of a DP to which another DP is adjoined, e.g., 'the new book, the one of Mary's…'.

(39) a. *carte-a* *mea* [Romanian]
book.F.SG-the I-POSS.F.SG
'my book'
b. *carte-a* {*Mariei* / *lui* *Mihai* /*profesorului*}
book.F.SG-the Mary he.DAT Mihai teacher-the.DAT
'Mary's/Mihai's/the teacher's book'
c. **carte-a* *nouà* {*Mariei* / *lui* *Mihai* /*profesorului*}
book.F.SG-the new Mary he.DAT Mihai teacher-the.DAT
'Mary's/Mihai's/the teacher's new book'
d. *carte-a* {*nouà* *a* *Mariei* / *lui* *Mihai* /*profesorului*}
book.F.SG-the new of Mary he.DAT Mihai teacher-the.DAT
'Mary's/Mihai's/the teacher's new book'

It is normally assumed in the literature on Romanian possessives that case on non-clitic pronouns and full DPs is licensed in different positions (see Grosu 1988; Avram & Coene 2000; Dobrovie-Sorin 2001). Romanian is thus analogous, in the relevant aspects, to Bulgarian and Macedonian. Genitive case on non-clitic pronouns receives a particular morphological expression, the "adjectival" possessive inflection. The structural analysis of Bulgarian and Macedonian possessive pronouns can be extended to Romanian, with the further assumption of obligatory N-to-D raising.

(40) $[_{DP}\ [_{D}\ N_j\ D\ ]\ [_{AgrP}\ PossDP_i\ [_{FGP}\ t_i\ [\dots\ [_{NP}\ [_{N}\ t_j]\ ]]]]]$

It is unclear whether full DPs in Romanian are valued dative or they receive genitive in a different position than FgP (similarly to the Russian (29)). I will assume the latter, as this will simplify the explanation for the loss of DP-internal clitics in this language. This means that, since full DPs are identical in surface form to indirect object pronouns[30] a surface case-syncretism must be involved.

As previously noted, DP-internal clitics are not productive.[31] To the extent that they are acceptable DP-internally in the contemporary language, possessive clitics behave similarly to Bulgarian and Macedonian clitics. They only appear in definite DPs and display second-position-like effects.

(41) **o* *carte* *i* [Romanian]
a book 3SG.AT
'a book of his/hers'

(42) *chipu* *i* *luminos* [Romanian]
face 3SG.DAT.CL bright
'her bright face'

Avram and Coene (2000) attribute the disappearance of DP-internal possessive clitics to the loss of second position clitics in the clause (the effects of which were notable by the 16th century). This conjecture cannot be correct, when considered in a cross-linguistic perspective. Bulgarian similarly lost its second-position clausal clitics (with the effects of the change evidenced by the 17th century, see Izvorski 1995), yet its second-position like clitics within the DP are fully productive. Serbo-Croatian, on the other hand, has retained its second-position clausal clitics but lost completely the DP-internal possessive ones. The explanation for the loss of DP-internal clitics in Romanian rather needs to be sought elsewhere.

I propose that this is due to a loss of dative case valuation mechanisms inside the DP. The historical change must be relatively recent, in comparison to Serbo-Croatian, and as usual with change in progress, the output of both grammars – one with dative case licensing in DP and internal possessive clitics, and one without – are still evidenced in the contemporary language. The loss of dative case valuation inside DP does not affect non-clitic possessives as they are valued genitive. If Romanian possessive clitics were posited to be genitive (as in e.g., Avram & Coene 2000), we would have to be looking for an alternative explanation of the historical change.

### 3.4.3 *Serbo-Croatian*

The behavior of possessives in Serbo-Croatian supports the proposal that clitics in that language are also dative-marked. As we saw earlier (example (10)), genitive clitics are not possible in the DP in this language. Serbo-Croatian has prenominal genitives, showing restrictions similar to those found with prenominal possessives in Bulgarian, Macedonian, and Russian. The unmarked position for the old agreeing genitive (the special "adjectival" possessive inflection) is pre-nominal (see (43)), and is limited to pronouns and animate, single-word full DPs. Postnominally, a morphologically distinct genitive case is available, as in Russian (see (44)). As in Russian, pronouns cannot appear in the "non-adjectival" genitive (see

(45b) vs. (43b)). However, unlike the situation in Russian, and like that in Old Church Slavonic, any DP that can appear in the "adjectival" genitive, is barred from occurring as an "ordinary" genitive (see (45a) vs. (43a)).

(43) a. *Petr-ova* *kuća* [Serbo-Croatian]
Peter-POSS.F.SG house.F.SG
'Peter's house'
b. *njegova* *kuća* [Serbo-Croatian]
his-POSS.F.SG house.F.SG
'Peter's house'

(44) kuća *moga* *brata* [Serbo-Croatian]
house.F.SG my.GEN brother.GEN
'my brother's house'

(45) a. **kuća* *Petr-a* [Serbo-Croatian]
house.F.SG Peter-GEN
'Peter's house'
b. **kuća* *njega* [Serbo-Croatian]
house.F.SG his.GEN
'his house'

Again, as in Russian, and as argued for Bulgarian and Macedonian, the generalization appears to be that pronouns can be valued genitive only in Spec, FgP. This explains why genitive clitics are prohibited in the Serbo-Croatian DP. The unavailability of dative clitics can be accounted for by positing that, unlike Bulgarian and Macedonian, but like the innovative Romanian grammar, Serbo-Croatian does not license dative case inside the DP (anymore).

### 3.4.4 *Greek*

In contrast to the languages discussed above, Greek allows non-clitic pronouns as possessors in the DP without an "adjectival" inflection. They have exactly the same surface form as indirect object non-clitic pronouns, i.e., no special inflection is required. The non-clitic pronouns occur only post-nominally, as do full DPs.[32]

(46) a. *to* *vivlia* *aftunu* [Greek]
the book his.NON-CL
'his book'
b. *Eftiaksa* *aftunu* *ena* *keik* [Greek]
made.1SG his.NON-CL a cake
'I made him a cake.'

The Greek facts are consistent with a view that genitive case is valued in the DP, post-nominally, and that its morphological expression is not limited to a particular class of DPs. In other words, the Spec, FgP-Spec, AgrP mechanism of possessive licensing is not part of the syntax of Greek DPs, unlike the rest of the Balkan languages. The non-clitic pronouns, although genitive-valued, have the same surface form as clausal dative pronouns because of a dative/genitive syncretism.

The placement of possessive clitics, unlike the case of Bulgarian, Macedonian, and Romanian, is freer, though still subject to some restrictions. The post-nominal position, in which non-clitic possessive DPs have to appear, is always available to possessive clitics. But clitics can also follow pre-nominal adjectives, and non-clitic determiners, (cf. (47), from Kolliakou 1998). Possessive clitics cannot follow post-nominal adjectives, complements of prenominal adjectives, and adverbial modifiers.

(47) a. *ola tus ta prosfata epistimonika arthra* [Greek]
all they.CL.GEN the recent scientific papers
b. *ola ta prosfata tus epistimonika arthra* [Greek]
all the recent they.CL.GEN scientific papers
c. *ola ta prosfata epistimonika tus arthra* [Greek]
all the recent scientific they.CL.GEN papers
d. *ola ta-prosfata epistimonika arthra tus* [Greek]
all the-recent scientific papers they.CL.GEN
'all their recent scientific papers'

Greek possessive clitics are not restricted to definite DPs, as the example below (from Alexiadou & Stavrou 2000) illustrates.

(48) {*ena/kapjo*} *tis vivlio* [Greek]
a/some she.CL book
'a/some book of hers'

In sum, clitics in Greek can appear in the position in which non-clitic possessives can (in addition to some others, higher in the DP), and they are not restricted as to the definiteness of the DP.

Given that genitive case in Greek appears to be available for any DP in the post-nominal position, without a restriction as to category (e.g., pronoun vs. non-pronoun), and given that possessive clitics may appear in this post-nominal position, they may have abstract genitive case as well. There are further reasons to think that Greek possessive clitics are genitive-valued, based on historical considerations. As Alexiadou (2001) demonstrates, in earlier stages of Greek a prenominal genitive position existed, which ceased to be available for DPs around the 15th C.[33] Yet Modern Greek can still have clitics in this position, provided they are preceded by an adjective. The possessive clitics show a number of restrictions similar to the ones found with prenominal genitives in earlier stages of Greek. Following Manolessou (2000), Alexiadou (2001) notes that historically, prenominal genitives had to be human and definite; and frequently, proper names occupied this position.[34] By the Byzantine period (5th–15th C), prenominal genitives in vernacular texts are limited to proper names and pronouns, and they only appear together with an adjective modifying the head noun, as in (49) from Manolessou (2000).

(49) *ta eugenika tu Halepe korasia* [Byzantine Greek]
the kind.PL the Halepe.GEN girls
'Halepe's kind girls'

In Modern Greek, only post-nominal genitives are found, except for clitics in the presence of an adjective, as illustrated in the following example from Alexiadou (2001):

(50) *i ksafniki tus apohorisi* [Greek]
the sudden they.CL.GEN departure
'their sudden departure'

Importantly, Alexiadou and Stavrou (2000) point out that there is an animacy restriction on prenominal clitics that is not there with postnominal ones.[35]

(51) a. *o trelos odhigos tu* [Greek]
the crazy driver 3SG.M/N.CL.GEN
1. 'its crazy driver' (e.g., the crazy driver of the truck)'
2. 'his crazy driver' (e.g. someone's crazy chauffeur)
b. *o trelos tu odhigos* [Greek]
the crazy 3m/n.SG.CL.GEN driver
1. *'its crazy driver'
2. 'his crazy driver'

The animacy restriction and the requirement for the presence of an adjective are common to pre-nominal clitics and pre-nominal genitive DPs of the Byzantine period. This suggests that pre-nominal possessive clitics, and by extension post-nominal ones, have indeed the syntax of genitives.

There is a further semantic restriction associated with pre-nominal possessive clitics noted by Alexiadou and Stavrou (2000). These authors observe that adjectives which are ambiguous with post-nominal clitics, become unambiguous with pre-nominal ones. In particular, as shown in the following example, whereas an adjective such as *paljo* 'old' may mean 'former' or 'aged' in (52a), it may only mean 'former' in (52b), the loss of reading being associated with the position of the possessive clitic.

(52) a. *to paljo aftokinito mu* [Greek]
the old car I.CL.GEN

1. 'my former car (the car I used to own)'
2. 'my aged car'

b. *to paljo mu aftokinito*
the old I.CL car
only: 'my former car (the car I used to own)'

A likely explanation for these facts is that there are (at least) two pronominal positions available for temporal adjectives (as indeed advocated by Larson and Cho 2000 regarding ambiguities of temporal adjectives with respect to possessives), one preceding a pre-nominal genitive and one following it, each position being associated with a particular meaning. The surface word order in the case of (52a) corresponds to two structures and is thus ambiguous. The pre-nominal placement of the clitic disambiguates between the two structures.[36]

Interestingly, the same interpretive effects of the position of adjectives with respect to prenominal possessives obtain in Bulgarian. When the adjective *star* 'old' appears after a pre-nominal ("adjectival") possessive, it is ambiguous; when it precedes the possessive, it loses the 'aged' reading, as (53) illustrates.[37] No such interpretive effects are observed with clitics (see (54)):

(53) a. *povečeto moi stari koli* [Bulgarian]
most-the my.POSS.PL old.PL cars
1. 'most of my previous cars'
2. 'most of my aged cars'

b. *povečeto stari moi koli* [Bulgarian]
most-the old.PL my.POSS.PL cars
only 'most of my previous cars'
not 'most of my aged cars'

(54) a. *povečeto mi stari koli* [Bulgarian]
most-the I.CL.DAT old.PL cars
1. 'most of my previous cars'
2. 'most of my aged cars'

b. *starite mi koli* [Bulgarian]
old.PL-the I.CL cars
1. 'my previous cars'
2. 'my aged cars'

As discussed earlier, the prenominal possessive in Bulgarian is genitive-valued. Apparently, in both Greek and Bulgarian, the position of adjectives with respect to pre-nominal genitives has interpretive effects. The lack of such effects in the interpretation of adjectives in the presence of clitics suggests that the clitic in Bulgarian is always syntactically higher than the adjective. In the literature, authors have typically assumed that it is adjoined to $D^0$ (e.g., Schoorlemmer 1998; Embick & Noyer

2001) or is a functional head higher than DP (Dimitrova-Vulchanova 2000) and that the surface position of the adjective in (54b) is a derived position that has to do with second-position placement. Facts like these further strengthen the conclusion that the Greek prenominal clitic is genitive-valued.

## 3.5 Clitic doubling

In Bulgarian and Macedonian possessive clitics can appear together with a possessive PP (see (55) and (56) below, which illustrate doubling with full DPs in the PP, and also (32) above, where pronouns were doubled).

(55) a. *novite mu knigi na Ivan* [Bulgarian]
new-the he.CL.DAT books to Ivan
'Ivan's new books'
b. *na Ivan novite mu knigi* [Bulgarian]
to Ivan new-the he.CL.DAT books
'Ivan's new books'

(56) a. *majka mu na carot* [Macedonian]
mother he.CL to king-the
'the king's mother'
b. *na carot majka mu* [Macedonian]
to king-the mother he.CL
'the king's mother'

It was argued earlier that, given the proposal above that possessive PPs in Bulgarian and Macedonian are the overt realization of dative case valued inside the DP, the fact that they co-occur with clitics suggests that the clitics themselves have dative rather than genitive case features. It was further argued that, if this is on the right track, then we would expect that clitics would not be able to double "adjectival" possessive pronouns, as these were argued to be genitive valued. This was indeed the case, as illustrated in (33) above.

Note that the unacceptability of the examples in (33) cannot be due to the fact that both the clitic and the non-clitic pronoun need to value their case feature and they are in competition with one another to enter into a structural relationship with the case licenser. (See Jaegli 1986; Borer 1983, 1986; Aoun 1999, a.o. for case-theoretic approaches to clitic doubling.) The same logic should rule out (55) and (56), as well as (32) above.

Note further that the preposition *na* in (55) and (56) is obligatory not because the clitic has 'absorbed' the available case and the DP argument is in need of case-valuation. The essence of Kayne's generalization regarding clitic doubling is that the clitic-doubled DP needs to be introduced by a preposition because the clitic "absorbs" the case provided by the case-assigner. Yet Kayne's generalization does not obtain for clitic doubling in the domain of the clause in these languages.[38] Moreover, the preposition *na* remains obligatory in (55) and (56) in the absence of the clitic.

Romanian possessive clitics were argued to have dative features, and given that clitic doubling in the domain of the clause is possible in this language, one could expect that clitic doubling should also be possible in the domain of the DP. As argued above, however, a cross-linguistically plausible account of the loss of DP-internal possessive clitics implicates loss of dative case valuation mechanisms inside the DP. Thus, not only possessive pronouns, but also full DP arguments, are valued genitive in Romanian. Because of this, it is predicted that doubling should not be possible, and this is indeed the case.

(57) a. *carte-a *mi* *mea* [Romanian]
book.F.SG-the I.CL.DAT my.POSS.F.SG
'my book'
b. **carte-a* *mi* {*(a)* *Mariei* */lui* *Mihai* */profesorului*}
book.F.SG-the I.CL.DAT of Mary the Mihai teacher-the.DAT
'Mary's/Mihai's/the teacher's new book'

In contrast, external possessive clitics can be doubled by a raised argument. In this respect, possessive clitics behave like clausal pronominal clitics.

(58) *I-am* *vazut* *Mariei* *carte-a.* [Romanian]
3SG.CL-have.1SG seen Mary.DAT book-the
'I have seen Mary's book'

In Serbo-Croatian clitic doubling is never possible, and correspondingly, the external possessive clitics cannot be doubled. Thus, in the following sentence, the two pronouns cannot be construed either as possessives or as indirect objects.

(59) **Njemu* *sam* *mu* *pročitala* *knjigu.* [Serbo-Croatian]
him.DAT be.1SG he.CL read book
purported reading 1: 'I have read his book.'
purported reading 2: 'I read the book to him.'

In Greek clitic doubling is prohibited with possessive clitics,[39] whether the clitic is in the post- or pre-nominal position, as the following examples illustrate ((60a) is from Alexiadou and Stavrou 2000).

(60) a. **to* *vivlio* *tu* *tu* *fititi* [Greek]
the book he.CL.GEN the student
'the student's book'

b. **ena/kapjo tu vivlio tu fititi* [Greek]
a/some he.CL.GEN book the student
'some book of the student'

Greek allows clitic doubling in the clause. But given that possessive clitics were argued here to be genitive, and hence distinct formal objects from clausal clitics, there is no prediction with respect to the behavior of possessive clitics. The facts of (60) are compatible with the view that possessive clitics and genitive arguments are competing for case-valuation.

### **3.6** Summary of case issues

This section presented arguments that, despite appearances, possessive clitics in the Balkan languages are not all alike. Possessive clitics in Bulgarian, Macedonian, and Romanian were previously considered to have abstract genitive case, and the clitics' morpho-phonological identity to clausal indirect object clitics was thought to be the result of surface syncretism. Arguments were provided here that possessive clitics in these languages are in fact valued dative in the syntax. The same was argued to be true for Serbo-Croatian. This language lacks the dative/genitive syncretism of its neighbors in the first place and its possessive clitics are unambiguously dative. The lack of DP-internal possessive clitics was attributed to a loss of dative case-valuation mechanisms inside the DP. The same historical change was posited to underlie the non-productive use of DP-internal clitics in Romanian. Greek was argued to be distinct from the rest of the Balkan languages studied, as its possessive clitics are valued with abstract genitive case; they have a common morpho-phonological expression with indirect object clitics because of surface syncretism.

Evidence for these proposals came from considerations of historical facts, facts from possessor 'raising' of the clitics, comparison with the behavior of non-clitic possessives, and the facts of clitic doubling, all viewed in a comparative perspective. Specifically, Greek possessive clitics were shown to be able to appear in a structural position that historically was a genitive-licensing position. They also can surface in a genitive position in which other non-clitic possessives appear, showing that they have no special properties apart from their status of special clitics. They do not undergo possessor 'raising', as is typical of genitive arguments. Since they are syntactically distinct from clausal indirect object clitics, there is no reason to expect that they should share syntactic properties such as clitic doubling with these clitics. In contrast, Bulgarian, Macedonian and Serbo-Croatian were shown to have had dative possessive clitics in a historical period when a morphological distinction between dative and genitive exponents was still maintained. Possessor "raising" was shown to be an option – in fact, obligatory in Serbo-Croatian and practically so in Romanian; and possessor 'raising' is known to be a property of datives. All four languages were shown to have a special genitive position in which non-clitic pronominal possessives have to appear, and which is associated with properties not shared by the clitics. Finally, clitic doubling with possessive clitics was shown to have the same cross-linguistic distribution as clitic doubling with indirect object clitics: to be possible in Bulgarian and Macedonian, but not in Serbo-Croatian, which is to be expected if the possessive and indirect-object clitics are the same syntactic objects. In Romanian, the absence of clitic doubling in DPs was attributed to the fact that non-clitic possessive in this language are valued genitive, the language essentially having almost entirely lost its dative-case valuation mechanism in the DP. Moreover, only doubling of non-genitive possessive arguments was shown to be possible in Bulgarian and Macedonian, and not that of "adjectival" possessives, which were argued to be genitive.

## 4. Heads or arguments?

Another question remains to be addressed concerning case. Pronominal clitics are intrinsically ambiguous as to their category, namely they can be merged and/or moved as heads or as phrases. Correspondingly, two types of analyses have been given in the general literature regarding the initial merge of clitics – as heads associated with a possibly non-overt argument (e.g., Borer 1983; Jaeggli 1986; Sportiche 1996) or as arguments in theta-position that have needs for case-valuation, possibly moving further as heads (e.g., Kayne 1991). Do Balkan possessive clitics, whether abstractly genitive, as in Greek, or dative, as in the other Balkan languages, have the syntactic behavior of heads or of maximal projections, at initial merge?

The proposal is as follows. In Bulgarian, Macedonian, and Romanian, clausal indirect object clitics are initially merged as $X^0$s. They do not originate in an argument position in the VP. Rather, they are bundles of case- and phi-features that are merged as adjuncts to the head of a functional projection in the extended projection of the verb that valuates dative case. Clitics are associated with a null pronominal or overt DP/PP, initially merged in a theta-position. This is essentially a Sportiche (1996) style analysis, the spirit of which goes back to Borer (1983). While not universally accepted for the languages under discussion, it is not particularly controversial that clausal clitics be treated as functional heads (see e.g., Tomić 1996b; Rudin 1997; Franks & King 2000; and for a different view, Bošković 2001). Being formally identical to dative clausal clitics, the Bulgarian, Macedonian and Romanian possessive clitics are initially merged as $X^0$s.[40] They do not originate in an argument position. Rather, they are bundles of case- and phi-features that are merged as adjuncts to a dative-case valuating functional head, $Fd^0$, in the DP or the clause (remaining agnostic here about the nature of possessor 'raising'). The clitics are associated with a null pronominal or an overt PP/DP in a theta-position (of the head noun or of a null possessive predicate), with matching phi-features and an unvalued case feature. After merge with $Fd^0$, the clitic enters into an Agree relation with $Fd^0$, as a result of which its case feature is valued dative. $Fd^0$ on the other hand gets its [– interpretable] phi-features valued. The possessive argument in theta position receives the same value for its case feature by virtue of being in a chain with the clitic. This mechanism of case licensing is an alternative to movement of the argument to Spec, FdP. $Fd^0$ requires Agree to be followed by Merge, and initial merge of the clitic or movement and re-merge of the argument itself, in the absence of the clitic, are the two ways to satisfy this requirement. Clitic doubling is the result of pronunciation of the argument PP/DP.

Note that conclusions on the basis of clitic-doubling, regarding the categorial status of clitics at merge, need not rest on the assumption that the doubled DP is an argument of the verbal or nominal predicate, and not an adjunct. Indeed, if it can be shown that the clitic-doubled DP is in an argument position, then its doubling clitic has to be analyzed as a head. But if the clitic-doubled DP is an adjunct, whether the clitic itself is an argument or a head at initial merge remains open. For instance, Aoun (1999) and Schneider-Zioga (1993) propose that doubled DPs are adjuncts in Lebanese Arabic and Greek, respectively, while the clausal clitics are heads associated with a null pronominal. (See e.g., Borer (1986), Anagnostopoulou (to appear) for detailed discussion of the argument/adjunct status of the clitic-doubled DP as a classic question in the grammar of clitics). Correspondingly, I will not present here arguments that the overt clitic-doubled DP/PP in Bulgarian and Macedonian is itself the argument.

In contrast to clausal clitics in Bulgarian, Macedonian and Romanian, clausal pronominal clitics in Serbo-Croatian are merged as XPs in theta position. They are arguments in their own right, a bundle of [+interpretable] phi-features and an unvalued case-feature. Clitics overtly raise to Spec, FdP (eventually second position effects are derived[41]) to get their case-feature valued dative and check their phi-features against $Fd^0$. This analysis allows for a natural account of the absence of clitic doubling with second-position clitics. As possessive clitics are formally identical to dative clausal clitics, possessive clitics in Serbo-Croatian are similarly merged as XPs in theta position. They cannot be doubled by an argument, because they *are* the argument.

In Greek, it was proposed here that possessive clitics have distinct features from indirect object clitics, at least as far as case is concerned. Since there is no formal identity between the two, possessive clitics need not have the same analysis as indirect object clitics. Greek clausal pronominal clitics have been argued to be initially merged as $X^0$s (e.g., Terzi 1999; Anagnostopoulou to appear[42]),[43] a view that is consistent with the correlation advocated here between categorial status of pronominal clitics at merge and the availability of clitic doubling. Possessive clitics, on the other hand, are initially merged as XPs, arguments within the DP in their own right, getting their case feature valued genitive, and prohibiting clitic doubling (consistent with the view in Alexiadou & Stavrou 2000; Alexiadou 2001).

The head/phrase distinction at initial merge allows for a natural account of selectional restrictions between possessive clitic and the nominal head in the DP such as the ones found in Macedonian. Recall that in Macedonian possessive clitics occur only with nouns denoting kinship predicates such as *wife, daughter, mother, sister,* etc. This restriction is not present with non-clitic possessors (see (61)).

(61) a. _mojata_ _kniga_ [Macedonian]
I.POSS.F.SG-the book.F.SG
'my book'
b. *_knigata_ _mi_ [Macedonian]
book.F.SG-the I.CL
'my book'

The restricted distribution of possessive clitics in Macedonian is accounted for naturally by the assumption that possessive clitics are heads adjoined to the head of a functional projection FdP. We can posit that the Fd$^0$s in Macedonian DPs that can value a dative case feature can appear only in DPs with a relational N$^0$. Technically, the selection can be done through a diacritic feature on Fd$^0$ (and the head it selects). The relevant clitic exponent can still be inserted as the most specified vocabulary item for that position. We thus have found a principled way to capture the particular restriction in Macedonian, importantly, without having to posit special diacritics on the possessive clitics themselves, thus preserving the formal uniformity with clausal dative clitics.

## 5. Conclusions

Much less attention has been paid in the literature to Balkan possessive clitics than to their clausal counterparts. Moreover, previous work has largely concentrated on investigations of individual languages; the only comparative studies of Balkan possessive clitics that I am aware of are discussions of Bulgarian and Macedonian in Tomić (1996a), Franks and King (2000), Caink (2000) and Schick (2000). But as we saw in this paper, some of the really interesting questions arise only when we look at the languages in comparison.

In particular, all of the Balkan languages have possessive clitics, which are identical morpho-phonologically to indirect object clitics in the domain of the clause. The null assumption (also explicitly endorsed by the majority of scholars writing on the topic) is that this phenomenon does not reflect an identity of abstract case, but merely an identity of its morphological expression. Such reasoning is strengthened by the fact that four of the five languages have experienced a collapse of the exponents of genitive and dative case. Yet, a comparative consideration of possessive clitics in the Balkan languages reveals unexpected cross-linguistic differences.

The following points summarize the proposals made in this paper:

(62) Balkan possessive clitics are:
  a. D$^0$ adjuncts to a functional projection valuating dative [Bulgarian, Macedonian, Romanian]
  b. DPs valued dative [Serbo-Croatian]
  c. DPs valued genitive [Greek]

(63) Historical change involving the loss of dative-case valuation mechanism inside the DP is responsible for the lack of DP-internal possessive clitics in Serbo-Croatian and their non-productivity in Romanian.

(64) Non-clitic "adjectival" possessives are valued genitive. In Bulgarian and Macedonian, this is the only genitive-licensing mechanism available.

(65) Romanian and Greek are the only languages for which a genitive/dative syncretism needs to be evoked independently of clitics.

What follows is a fragment of the grammar for clitics, illustrating the proposals put forward here.

(66) Syntactic category and features of possessive clitics and indirect object clitics at merge
  $\text{D}^0_{\text{<[+interpretable] phi. [–interpretable] case>}}$

(67) Syntactic structures at Spell-Out
  a. possessive clitics:
    $[_{\text{FD}}{}^0 \quad \text{D}^0 \quad \text{F}_{\text{D}}{}^0]$ [Bulgarian/Macedonian/Romanian]
    $[_{\text{FDP}}\ \text{DP} \quad [_{\text{FD'}}\ \text{F}_{\text{D}}{}^0]]$ [Serbo-Croatian, Greek]
  b. indirect object clitics:
    $[_{\text{FD}}{}^0 \quad \text{D}^0 \quad \text{F}_{\text{D}}{}^0]$ [Bulgarian/Macedonian/Romanian/Greek]
    $[_{\text{FDP}}\ \text{DP} \quad [_{\text{FD'}}\ \text{F}_{\text{D}}{}^0]]$ [Serbo-Croatian]

(68) Syntactic features of clitics at Spell-Out
  a. possessive clitics:
    <[+interpretable] phi.DAT> [Bulgarian/Macedonian/Romanian/Serbo-Croatian]
    <[+interpretable] phi. GEN> [Greek]

b. indirect object clitics:
<[+interpretable] phi.dat> [Bulgarian/Macedonian/Romanian/Serbo-Croatian/Greek]

(69) Vocabulary Items for 3Sg possessive clitics and indirect object clitics
a. *mu* ↔ [+interpretable] 3sg [Bulgarian/Macedonian]
*í* ↔ [+interpretable] 3sg.fem
*i* ↔ [+interpretable] 3sg [Romanian]
b. *mu* ↔ [+interpretable] 3sg [Serbo-Croatian]
*joj* ↔ [+interpretable] 3sg.fem
c. *tu* ↔ [+interpretable] 3sg [Greek]
*tis* ↔ [+interpretable] 3sg.fem

The exponents instantiating possessive and indirect object clitics in the Balkan languages are themselves underspecified for case. This allows for the same exponent to be inserted both in syntactic terminals with a dative case feature and in those with a genitive case feature. I am further assuming, of course, that vocabulary items for accusative clitics in all of the languages are specified accordingly, so that the exponents in (69) could not be inserted in syntactic terminals with an accusative case feature.

Thus, as far as vocabulary items for possessive and indirect object clitics are concerned, the Balkan languages are uniform (except for the exact phonology of the exponent, of course). Where they differ is in the syntax of clitics, in particular the case value that the clitics receive and the position (and accompanying mode) of their initial merge.

Based on the conclusions of the comparative study of possessive clitics, the following issue arises. Given that clitics in Bulgarian, Macedonian, Romanian and Serbo-Croatian are identical to indirect object clitics as far as case, phi-features and category is concerned, and given further that in all these languages plus Greek the particular exponents that lexicalize the clitics are identical, why are the clitic placement patterns distinct in the domain of the DP and of the clause? How can we formulate the syntactic, morphological and phonological properties of clitics so that the distinctions in cliticization patterns fall out while preserving the formal identity of the clitics themselves? Addressing this issue in detail will be the subject of another study.

## Notes

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**1.** The thematic interpretation available to possessive expressions is varied, even within a single language, and is dependent on a multiplicity of factors, such as the type of head noun – whether an object nominal, a relational noun, or a nominalization (e.g., his team vs. his mother vs. his creation); the presence of certain modifiers (e.g., his favorite movie vs. his new movie); the presence of (other) arguments (e.g., his picture of Mary, his examination of the students), the morpho-syntax (a picture of him vs. a picture of his). Furthermore, the morpho-syntax of possessive expressions is subject to considerable cross-linguistic variation. All of these clearly complex issues are beyond the scope of this paper; for discussion see, e.g., Alexiadou (2001a), Borer (1999/2001), Borschev and Partee (2001), Partee and Borschev (2000), Barker (1995), among many others.

**2.** This is done for concreteness. The results can also be formalized in frameworks that do not assume late insertion of vocabulary items, with similar effect. The mechanism of case-licensing assumed here, makes the proposal incompatible only with strong lexicalist theories.

**3.** Rare instances of DP-internal possessive clitics can be found in Serbo-Croatian, as in (i), an example from a newspaper review, and (ii) an archaic, but not impossible expression (Wayles Browne, p.c.).

(i) *Sada sam, ali opet pod firmom matičnog mu* [Serbo-Croatian]
now alone but again under trade-name original he.cl.dat
*sastava,. . . .*
group
'Now alone, but again under the trade-name of his original group,. . . '

(ii) *Ivan i žena mu* [Serbo-Croatian]
Ivan and wife he.cl.dat
'Ivan and his wife'

**4.** To simplify the discussion, I am assuming that clausal indirect object clitics have abstract dative case features.

**5.** Nominative case is ignored here, as the languages under consideration have no nominative clitics. Obviously, the formalization may be extended to nominative pronouns.

**6.** The latter option is also implicitly assumed by Stateva's (2002) analysis for Bulgarian.

**7.** On a related problem of double case in some Slavic possessive DPs, see Corbett 1995.

**8.** A terminological clarification is in order. Duridanov et al. 1993, refers to the language in the examples (13), (14b) as Old Bulgarian, rather than Old Church Slavonic. This classification, although shared by some other authors, is not necessarily the standard view in the literature (see Schenker 1995; Lunt 2001). Usually, a distinction is made between Old Church Slavonic – the earliest recorded supranational South Slavic language – and its regional dialects, e.g., Old Bulgarian, despite the fact that linguistic differences are minimal (especially with respect to Old Bulgarian, as Old Church Slavonic already had some Eastern South Slavic features). Historical documents from the 10–11th century are thus classified as either Old Church Slavonic or of regional provenience. The texts, from which the Duridanov et al. examples are taken, belong to the small body of manuscripts and inscriptions, included in the cannon of Old Church Slavonic (cf. Schenker 1995).

**9.** Ethical datives are acceptable in Greek, as pointed out by a reviewer, reminding us that external possessives and ethical datives are distinct phenomena:

(i) *Ke mu lerothike to kalo panteloni.* [Greek]
and I.CL.DAT got-stained the good trousers
'and my good trousers got filthy on me.'

**10.** This is not meant to deny that there are such factors. It is also likely that the two languages are currently undergoing a change, like the one already completed in Serbo-Croatian where internal possessive clitics are ungrammatical, and like the one almost completed in Romanian.

**11.** This statement is meant to include not only abstract case realized by case affixes but also by various PPs, e.g., the Spanish dative *a Carmen* vs. genitive *de Carmen.*

**12.** Payne and Barshi (1999: 3) observe that cross-linguistically, external possessors may be subjects, direct objects or indirect objects, and thus be marked nominative, accusative, dative, ergative, or absolutive, depending on language type. They note (p. 9) that dative arguments are particularly widespread.

**13.** Szabolcsi provides several arguments that the dative possessor in (20b) is a constituent of the DP, based on facts of *wh*-movement, focus movement, coordination.

**14.** Traditionally, these prenominal possessives are considered adjectives. I use 'adjectival' in quotes as I do not advocate the presence of an adjectival layer in the structure of these phrases.

**15.** The emphasis on the indirect object pronoun indicates that it is necessarily contrastively focused, in the absence of clitic-doubling. Similar emphasis on the non-clitic pronoun *na nego* 'to him' in the DP in (22b), and a corresponding contrastive focus interpretation, improves the acceptability of the example for some native speakers. (The judgments regarding the acceptability of *knigata na nego* 'HIS book' ranged from * to ?? to ? to OK).

**16.** Clitic-doubling is obligatory here, unlike in the Bulgarian example (22c).

**17.** Examples like (i) (based on a question a reviewer asked) are acceptable. The proper name is a non-branching constituent.

(i) *Elin Pelin-ovi-te razkazi* [Bulgarian]
Elin Pelin- POSS.PL-the story.PL
'Elin Pelin's stories'

**18.** E.g., in Bulgarian in addition to *čičova* 'uncle's' we have *majčina* 'mother's', *baština* 'father's', *mamina* 'mom's', *tatkova* 'dad's', *babina* 'grandmother's', *djadova* 'grandfather's', *lelina* 'aunt's', *bratovčedova* 'male cousin's', but **bratovčedkina* 'female cousin's', **sâprugina* 'wife's', **sâprugova* 'husband's', **ljubovnikova* 'lover's', **prijatelkova* 'male friend's', **prijatelkina* 'female friend's'.

**19.** I find it to be the case that 'adjectival' possessive pronouns also require animate antecedents. However, judgments are admittedly subtle. See Schoorlemmer (1998) for the claim that non-clitic pronominal possessives in Bulgarian can have inanimate antecedents.

**20.** Anaphoric *jь* and demonstrative *tъ* were used as 3rd person pronouns.

**21.** In the case of the 3Sg.Masc and 3Pl pronouns, the possessive suffix was clearly added to the genitive form, the dative forms being *emu* and *těmъ*, respectively. For the 3Sg.F pronoun, affixation could have applied either to the genitive *ee,* or the dative *ei* (W. Browne, p.c.). However, given the situation with the other pronouns, I assume that the historical change in (26b) is the one that actually occurred.

**22.** The 3Pl possessive form *nixov* is used in the Ohrid dialect of Macedonian. A more widespread form is *nivni/niven.* (O. Tomić, p.c.).

**23.** This is the case in the modern languages but not in Old South Slavic, as W. Browne (p.c.) reminds me. The "adjectival" possessives could appear both pre- and post-nominally, as in (i). The pre- and post-nominal variation in the distribution of possessives is likely due to the more readily available scrambling in Old South Slavic than to the existence of two distinct case positions licensing the "adjectival" possessive inflection, in addition to the post-nominal position licensing "non-adjectival" genitives (see (14)).

(i) a. *tekton-ovъ* *synъ* [Old Church Slavonic] (Lunt 2001: 146)
carpenter-POSS.M.SG son.M.SG
'carpenter's son'

b. *učenici* *ioan-ovi*
disciples.M.SG Ioan-POSS.M.PL
'Ioan's disciples'

**24.** For further discussion of animacy restrictions on possessive expressions and how they relate to the pre- and post-nominal position, see Dimitrova-Vulchanova and Giusti (1999) for Bulgarian, and Cardinaletti (1998) more generally.

**25.** For some native speakers, two nominals may be licensed by the Spec, FgP – Spec, AgrP mechanism – presumably in another pair of functional projections (see (i), based on a reviewers suggestion, which I find degraded).

(i) ?*moja-ta* *Šekspirova* *piesa* [Bulgarian]
I.poss.F.SG-the Shakespeare.poss.F.SG play
'my play by Shakespeare'

**26.** This structure occurs only in the Eastern dialects of Macedonian. In standard Macedonian and its central and western dialects there are no prepositional datives with pronouns. (O. Tomić, p.c.)

**27.** Ethical dative clitics are allowed, however. Thus, in contrast to (33), we have the examples in (i): (O. Tomić p.c.)

(i) *moeto* *mi* *dete* [Bulgarian], [Macedonian]
my.non-CL.poss.neut.SG-the I.CL child.neut.SG
'my child'

**28.** For more discussion and numerous examples of the ordering facts concerning possessive clitics, see Ewen (1979), Tomić (1996a), Schoorlemmer (1998), Baerman and Billings (1998), Dimitrova-Vulchanova and Giusti (1999), Dimitrova-Vulchanova (2000), Franks and King (2000), Franks (2000a), Schick (2000a), Schürks and Wunderlich (2000), Stateva (2002), Avram and Coene (2000), Caink (2000), Embick and Noyer (2001).

**29.** There appears to be a lot of dialectal variation in Macedonian. According to Friedman (1993), Tomić (1996), Baerman and Billings (1998), clitics can follow the head noun or a prenominal adjective. Cašule (p.c. to Franks & King 2000) however notes that the AdjP-clitic-N order is restricted, especially with 3rd person clitics (i.e., he accepts only (37c) as grammatical). Furthermore, according to Baerman and Billings (1998), clitics have to be adjacent to the N (i.e., for them (37b) is ungrammatical). Finally, Tomić (p.c.) notes that (37a, b) are marginal. Note also, that certain nouns like, *žena* 'wife', do not appear with the definite article, in the presence of a possessive clitic, in both Bulgarian and Macedonian.

**30.** For example:

(i) a. *cartea* *lui* *Mihai* [Romanian]
book-the the Mihai
'Mihai's book'

b. *I-am* *scris* *lui* *Mihai*
CL.DAT-have.3SG written the Mihai
'I/we wrote to Mihai'

**31.** Acceptability also appears to vary according to person-number, with 3Sg being more acceptable DP-internally than 1Sg and 2Sg, and with the Pl clitics being practically out of use internally (Avram and Coene 2000).

**32.** A reviewer points out that the facts in (46) are more complicated: the form *aftunu* is deictic and the non-deictic *aftu* would be unacceptable without clitic-doubling.

**33.** Although this position was already relatively rare in New Testament (*koine*) Greek (4th C BC–4th C AD), as observed by Taylor (1990).

**34.** Similarly to the 'adjectival' genitive in Old and modern Slavic.

**35.** Apparently, there is some dialectal variation with respect to animacy restrictions with pronominal clitics. A reviewer points out the example in (i) is acceptable (and Kolliakou (1998) has a similar example, her (7a)).

(i) *i* *palies* *tis* *tixografies* [Greek]
the old her.CL.GEN murals
'it's old murals' (e.g., the old murals of the church)

My Greek consultants find (i) unacceptable, and agree with the judgments in (51).

**36.** Again, the facts may be more complicated. The reviewer providing example (i) in Fn. 33 also points out that the adjective *old* receives the 'aged' interpretation.

**37.** A determiner is added to keep constant issues of the placement of the definite article. In the absence of a determiner, the definite article would appear as a suffix on either the possessive or on the adjective *old,* whichever is linearly first.

**38.** For instance, see (i). (ib) is from Tomić 2000.

(i) a. *Vidjax go nego.* [Bulgarian]
saw-1SG he.CL.ACC he.non-CL.ACC
'I saw him.'
b. *Ne ḱe sum mu go dadela proektot nemu.* [Macedonian]
not will be-1SG he.CL.DAT it.CL.ACC given project-the he.non-CL.DAT
'As reported, I would be unwilling to give the project to him.'

**39.** A reviewer contributes (i) as an acceptable case of clitic doubling:

(i) *to vivlio mu emena* [Greek]
the book I.CL.GEN I.NON-CL
'my book'

This example was accepted by some but not others of my native-speaker consultants. If the non-clitic pronoun is a true argument rather than a dislocated element, then presumably, again we are faced with a dialectal difference, though the issue must be more complicated because even those who accepted (i) found (60) at least degraded.

**40.** See Dimitrova-Vulchanova (2000) for an analysis of possessive clitics in Bulgarian as heads taking DP as a complement.

**41.** Somehow. There are only PF-operations from that point on, and what exact mechanism is involved, is beyond our concern here. See Legendre (1999), Franks (2000b), Franks and King (2000), Bošković (2001), among many others.

**42.** Technically, for Anagnostopoulou (2001) indirect object clitics are not merged in the extended projection of the verb, but are D-features of DP arguments, undergoing movement to the functional domain.

**43.** See Kolliakou (1998), Alexopoulou and Kolliakou (2002) for a different view of the categorical status of clitics.

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