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COMPARATIVE SYNTAX

Comparative
Syntax
of
Balkan
Languages

Edited by

María Luisa Rivero

Angela Ralli

Comparative Syntax of Balkan Languages

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Comparative Syntax of Balkan Languages

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Introduction

María Luisa Rivero and Angela Ralli

This volume grew out of the workshop on the syntax of Balkan languages, organized by Angela Ralli and Irene Philippaki-Warbuton, held in Athens in 1996 in connection with the Glow Colloquium. The idea behind this workshop which featured Brian D. Joseph and María Luisa Rivero as invited speakers, was to provide a forum where comparative work related to the syntax of Balkan languages could be presented. This is also the basic goal of the present collection. The volume brings together seven papers on syntactic topics in which leading and new researchers in Balkan syntax examine aspects of the grammar of mainly Albanian, Bulgarian, Greek, and Romanian.

It is well known that the languages of the Balkan peninsula belong to different families but share an important number of linguistic features, which derive from long and extensive contact. In the study of the syntax of these languages, many interesting questions arise, especially with respect to the functional categories. In some, such as Greek, these categories have been studied quite extensively. In languages such as Albanian, by contrast, functional categories have received less attention. From this point of view, a comparative study of the syntax of Balkan languages is of major importance and can not only contribute to our knowledge of these individual languages from a typological perspective, but also play an important role in the development of linguistic theory.

While the papers in this volume do not attempt to present a systematic overview of Balkan syntax, they constitute an important step toward the analysis of some intricate phenomena characterizing these languages, such as subjunctive complements, to name just one. By stressing the role of functional categories in syntax, the authors deal with topics that are of much traditional interest in syntactic analysis and have also proven fundamental in determining the typological characteristics of the Balkan languages. The approach that inspires most of the proposals in the volume is the Principles and Parameters framework (Chomsky

1981, Chomsky and Lasnik 1993) and subsequent developments under the minimalist program (Chomsky 1995).

There is a long and rich tradition of Balkan linguistics, but it has by and large focused on historical issues and mainly dealt with phonology and morphology. Much less attention has traditionally been directed toward the syntax of the Balkan languages *per se* or to its place in Universal Grammar. The generative framework and its conception of Universal Grammar allows for treatment under a cohesive system of what appear to be unrelated language dependent phenomena. This approach has opened new venues in the study of Balkan languages that have led to a considerable body of work whose results are radically different from those found in traditional studies, and which deal with topics of fundamental interest to linguistic theory. The papers collected in this book aim to add momentum to these existing studies on Balkan syntax by carefully examining phenomena that shed further light on current theoretical problems and controversies. They provide in-depth studies of topics related to functional categories in both nominal and sentential constructions, covering many of the areas that have preoccupied syntacticians in the past forty years. Brian D. Joseph distinguishes two approaches to comparative syntax and exemplifies them in view of negation. Carmen Dobrovie-Sorin, Iliyana Krapova, and Anna Roussou deal with a common topic in Balkan generative linguistics: raising and control in subjunctives. Dalina Kallulli is concerned with semantic and syntactic effects of doubling clitics, another topic with a long tradition in generative grammar. The two papers that close the volume deal with topics that have a shorter history in generative grammar. Antonia Androutsopoulou examines the structure of determiner phrases, and María Luisa Rivero delves into verb movement. The following introduction is intended to provide both a summary of the proposals in each of the papers and a sketch of the basic theoretical background in which each stands.

Concerned with the philosophical underpinnings of comparative linguistics, Brian D. Joseph argues in his "Is Balkan Comparative Syntax Possible?" for a distinction between the "comparative syntax of Balkan languages", that is, individual languages compared with languages of the Balkans or elsewhere, and "comparative Balkan syntax", that is, Balkan languages with the Balkan Sprachbund kept in mind. For Joseph, both types of investigation are useful, but they serve different purposes: the first advances our understanding of the Balkan languages as natural languages, while the second deepens our knowledge of the effects of contact on these languages. Joseph presents two case studies involving Balkan negation to show the value of one or the other comparative perspective. The first, which is of direct relevance to a comparative Balkan syntax and deals with issues of language contact and diachrony, concerns similarities and differences in Greek and Albanian of the functions of the modal negator with initial *m*, namely Modern Greek *mi(n)* and Albanian *mos*. Similarities include the fact that these *m*-negators serve in both languages as modal and nonfinite negators, are found in complements of verbs and nouns of fearing, participate in word formation with different levels of productivity, and are used in isolation to express prohibitions. Modern Greek *Mi!* and Albanian *Mos!* both

correspond to English 'Don't!' This last use finds no counterpart in Ancient Greek or Sanskrit, and Joseph suggests that it could be a Balkan innovation that spread through contact from one language to the other. The second type of study, which is of interest for the comparative syntax of Balkan languages, is exemplified by the discussion of a negative fused with an auxiliary, that is, the joining of a negative marker with a verb to form a single word unit. Joseph argues that there are reasons to consider the Greek indicative negator *dhen*, as in *Dhen idhe* 'He did not see', a verbal affix similar to *n't* in English *won't*. According to Zwicky and Pullum (1983), English *n't* is not a syntactically generated clitic but a morphologically generated affix. Joseph argues that typologically speaking, negative fusion is a widespread phenomenon and thus could have arisen independently in each of the Balkan languages that show it, and he suggests that certain developments in Tsakonian seem to lend support to this view. As an aside, it should be noted that most recent generative research seems to fall into the category Joseph labels "comparative syntax of Balkan languages" and that most papers in this volume take such an approach in the study of these languages.

Carmen Dobrovie-Sorin in "Head-to-Head Merge in Balkan Subjunctives and Locality," Iliyana Krapova in "Subjunctives in Bulgarian and Modern Greek," and Anna Roussou in "Control and Raising in and out of Subjunctive Complements" deal with raising (to subject), control, and obviation. Before summarizing the content of each of these papers, we wish to provide a background as to why raising and control are very prominent topics of discussion when dealing with Balkan languages.

A notable feature of the early development of generative theory is that finite clauses are viewed as islands for control and raising operations, as reflected in constraints such as the tensed-S condition of Chomsky (1973) or its successors. A consequence of this view is that discussions of raising to subject constructions, as in the French and Spanish examples in (1b) and (1d), and of control patterns, as in (2), are closely associated with nonfinite embedded clauses, most notably those with infinitives. (Hereafter embedded clauses are shown within brackets.)

- | | | | |
|-----|----|---|-----|
| (1) | a. | <i>Il semble [que les enfants travaillent.]</i> | Fre |
| | | 'It seems that the children are working.' | |
| | b. | <i>Les enfants semblent [t travailler.]</i> | |
| | | 'The children seem to work.' | |
| | c. | <i>Parece [que los niños están aquí.]</i> | Spa |
| | | 'It seems that the children are here.' | |
| | d. | <i>Los niños parecen [t estar aquí.]</i> | |
| | | 'The children seem to be here.' | |
| (2) | a. | <i>Brigitte veut [PRO chanter.]</i> | Fre |
| | b. | <i>Brígida quiere [PRO cantar.]</i> | Spa |
| | | 'Brigitte wants to sing.' | |

A more recent distinction closely connected to the infinitive/finite contrast is the phenomenon often called obviation in the Romance literature, which is exemplified in (3) (Picallo 1984, among others).

- (3) a. *Brigitte veut [qu'elle chante.]* Fre
 'Brigitte wants her to sing.'
- b. *Brígida quiere [que cante.]* Spa
 'Brigitte wants her/him to sing.'

In languages like French and Spanish, when the volition verb takes an infinitive complement as in (2), reference must be to only to one individual, so the assumption is that the subjects of the two clauses corefer (i.e., control). However, when the verb takes a complement in the subjunctive, such as *chante/ cante* in (3), reference is to two individuals, or the subjects are disjoint (i.e., obviation).

It is well known that the Balkan languages have lost nonfinite clauses (Joseph 1983) and substituted for them clauses with verbs variously inflected for tense/aspect, person/number, and/or mood, usually labeled "subjunctives" by Albanian and Modern Greek grammarians and "conjunctives" by some Bulgarian and Romanian grammarians. As a result, these languages offer a picture that differs from the one described for French and Spanish, which poses a variety of challenges to received views on control and raising with infinitives and on obviation with subjunctives. We know, for instance, that Ancient Greek displayed infinitival clauses reminiscent of those of French and Spanish above, but that such clauses are now absent from Modern Greek, where they correspond to so-called *na*-clauses or subjunctives, and that other languages of the region have evolved along parallel lines. To illustrate, the French and Spanish alternations with raising verbs in (1) correspond in Modern Greek to (4) (Roussou, this volume) with the complement in (4b), the clause with *na*, shown in bold from now on. Syntactic alternations with raising verbs in Romanian are shown in (5), and these examples contain embedded *să*-clauses sometimes called conjunctives.

- (4) a. *Fenete [oti ta peđja đulevun.]* Grk
 seem-3SG that the children work-3PL
 'It seems that the children work.'
- b. *Ta peđja fenonde [na đulevun.]*
 the children seem-3PL **na** work-3PL
 'The children seem to work.'
- (5) a. *S-a nimerit [ca copiii sǎ* Rom
 REFL-has-3SG happened that children.the *sǎ*
fie acolo.]
 were here
 'It happened that the children were here.'

- b. *Copii s-au nimerit [să fie acolo.]*
 children.the REFL-have-3PL happened să were here
 ‘The children happened to be here.’

In Balkan languages, the sentences with volition verbs corresponding to those in (2) are of the type in (6). Other than the *na*-clauses of Greek and *să*-clauses of Romanian, these examples illustrate the Albanian *të*-clauses and the Bulgarian *da*-clauses.

- (6) a. *Brixhida do [të kendojë.]* Alb
 Brigitte wants të sing-3SG
 ‘Brigitte wants to sing.’
- b. *Petër iskaše [da pročete knigata.]* Blg
 Peter wanted da read-3SG book.the
 ‘Peter wanted to read the book.’
- c. *O Janis ðeli [na fji.]* Grk
 the John wants na leave-3SG
 ‘John wants to leave.’
- d. *Rodica vrea [să citească.]* Rom
 Rodica wants să read-3SG
 ‘Rodica wants to read.’

It is also interesting that the French and Spanish sentences in (2–3) contrast in interpretation in the way described, while those in (6) are ambiguous and can be interpreted as involving two individuals, as in English *Brigitte wants someone to sing* for (6a), and so on. This last interpretation most closely corresponds to the reading of the subjunctive complement with the null subject in Spanish (3b), which means that obviation effects seem to be absent in these Balkan complements.

As to their morphosyntactic structure, one characteristic of the conjunctive or subjunctive clauses in these Balkan constructions is that they display verbs that in a pretheoretical sense are “finite”: they are overtly inflected for person, number, and tense or mood. For instance, Greek *dulevun* in the Raising construction in (4b) is the third person plural of the Present Tense. Another characteristic is that these clauses contain modal particles, which are reminiscent of complementizers but not quite like them.

In brief, when speaking of raising, control, and obviation, the absence of infinitives makes Balkan languages display interesting properties that distinguish them not only from languages like English or French, which lack null subjects and have a limited use of subjunctives, but from languages like Spanish, with null subjects and productive subjunctives that alternate with infinitives. The situation just described has raised two basic questions answered in a variety of ways as the theory has evolved, which has contributed to substantially enrich generative thinking, in particular the Government and Binding model, when research on Balkan languages experienced considerable

growth. Simply put, one basic question is whether bona fide subject raising or control exists in these Balkan languages. The other question pertains to the phrase structure of the conjunctive/subjunctive Balkan clause with its modal particle and its inflected verb and its effect on the finite/nonfinite distinction and the nature of the embedded subject in raising and control. In the following paragraphs we review some of the early answers these questions received and how they evolved in the Government and Binding model. Later in this volume, Dobrovie-Sorin, Krapova, and Roussou address them from more recent perspectives.

As to raising to subject as in (4b) and (5b) and its appropriate analysis, Soames and Perlmutter (1979:159–69) tell us that in Greek the derivation of such sentences involves a subject-to-subject transformation with movement properties. By contrast, for Ingria (1981) Greek has no bona fide movement in these cases, and he suggests that the overt NP is base generated in the matrix clause and a pronounlike item is the subject of the embedded clause (and see Chomsky (1995) for a recent minimalist reinterpretation of this analysis in terms of feature checking and movement). Government and Binding proposals with the same flavor as these early views include Grosu and Horvath (1984) on Romanian and Rivero (1987) on Greek, who postulate NP movement leaving an anaphoric trace, and Motapanyane (1991), who argues in the case of Romanian for an expletive little *pro* generated as the subject of the embedded clause forming a chain with the base-generated matrix NP. Turning to control as in (6), Joseph (1976) suggests a distinction between the transformations of equi-NP deletion and subject *pro*-drop for Greek; expressed in Government and Binding terms, this could correspond to the PRO versus *pro* of Iatridou, who distinguishes two types of subjunctives on this basis in an early paper published only in 1993. Or, in this view, the control theory of the Government and Binding model may be fully operative in Greek. By contrast, Ingria (1981) proposes a different idea, which expressed in current terms, is that Greek displays *pro* and lacks PRO (and does not seem to exploit the control module), as also advocated by Philippaki-Warbuton (1987).

The featural content and the phrase structure of the Balkan subjunctive/conjunctive clause have attracted much attention when one speaks of raising, control, and obviation. This is because the modal particle and the inflected verb have played crucial roles when defining finiteness and the nature of embedded subjects. The basic question concerning the particle seems at first sight to be rather simple, consisting in whether it is a Complementizer (category C) or, roughly speaking, an inflectional item (category I). However, generative answers to this seemingly innocent question suggest an intricate situation that was not anticipated in traditional grammars and raises many challenging questions. Householder, Kazazis, and Koutsoudas (1964, section 7.13, p. 166) reflect grammatical tradition when they attribute to Greek *na* a double role, and see this item sometimes as a modal particle and sometimes as a subordinating conjunction. In the generative literature this double role is formalized in a variety of ways. A prevalent view first found in Farkas (1982) for Romanian consists in the hypothesis that the modal particle is not generated

in the C position but may raise there in the course of the derivation, which gives it chameleonlike characteristics. Another treatment with modal particles and complementizers sharing properties is found in Rivero (1989): the two categories are generated in different clausal positions, roughly C and I, but nevertheless agree in mood features. A third view, rephrased in current terms later in this volume, is found in Dobrovie-Sorin (1994): the modal particle has an ambiguous or hybrid status, or can be considered both a Comp and an Infl element. Thus, a variety of generative positions now exists on why modal particles may play a double role. Some of the far-reaching implications of this are reconsidered in this volume by Dobrovie-Sorin, Krapova, and Roussou.

As to the phrase structure of the modal particle, we just mentioned one prevalent view, which is that it is not base generated or merged in the C position. This has also been expressed in a variety of ways. An early view stated by Ingria (1981:144) is that Greek *na* is an element of Aux rather than a Complementizer; recall that Aux is the node where Chomsky (1957) locates English tense affixes, modals, auxiliaries, and negation. Ingria assumes an X-bar system where V is the head of the clause, so *na* is for him more precisely a specifier of the VP. Rudin (1983, 1986) also views Bulgarian *da* as an element in Aux and gives arguments against its being a Complementizer. These are mentioned by Krapova later in this volume and recall arguments by Ingria for Greek *na*. The analysis of functional categories in the Government and Binding model provides much better tools for capturing the idea that modal particles are not generated or merged in C. One comparative proposal, first published in Rivero (1991:50a–b) is that in Balkan languages including Bulgarian such particles head a mood phrase (MP) above the tense phrase (TP); by contrast, in some Slavic languages such as Slovak they are specifiers of TP.

Having dealt at some length with some early ideas, we can now briefly summarize the proposals on raising, control, and obviation in this volume. Carmen Dobrovie-Sorin argues for a new solution rooted in earlier ideas, based on two core hypotheses. First, she modifies proposals by Koster (1978 and later work) and adopts the hypothesis that the subjects of subjunctive clauses in Balkan languages are sometimes intrinsic anaphors and sometimes contextual anaphors, which eliminates the need to postulate PRO in these languages. For Dobrovie-Sorin, this move has the advantage of unifying the analysis of raising, control, and obviation under a theory of anaphoric binding. The second basic hypothesis behind Dobrovie-Sorin's treatment concerns the constituent structure of Balkan subjunctive clauses. Based on the bare phrase structure theory of Chomsky (1995), she argues that functional heads that include the modal particle, the negation, and the clitic pronouns merge with each other to form a complex X^0 that is merged with the VP (Head-to-Head Merge). The simplified constituent structure resulting from this Head-to-Head Merge is at the source of the transparency of Balkan subjunctive clauses for raising and control operations.

Iliyana Krapova compares subjunctive complements in Bulgarian and Greek and establishes a parallel between the two as to control and a difference as to the order of overt subjects. Following Varlokosta and Hornstein (1993), she proposes that Bulgarian and Greek share two classes of subjunctives distinguished

on the basis of tense specification. The subjunctive complementing verbs such as the modal in (7a) are anaphoric to the matrix tense and have a PRO subject. The subjunctive complementing verbs such as the volitional in (7b) are not anaphoric and have a *pro* subject.

- (7) a. *Ivan može* [PRO *da spečeli pari.*] Blg
 ‘Ivan can make money.’
 b. *Ivan iska* [*pro da sledva.*]
 ‘Ivan wants to go to college.’

In this view, subjunctive verbs determine whether the clause contains PRO or *pro*, and the modal particle plays no role in this respect. In this way Krapova differs from Terzi (1991), who argues that PRO is essentially connected to the modal particle that raises to C. A difference between Bulgarian and Greek is the position of the overt subject. In Bulgarian, the subject may precede the particle or follow the verb (8). In Greek, the unmarked order is for the subject to follow the verb (9).

- (8) a. *Iskam* [*Ivan da zamine.*] Blg
 b. *Iskam* [*da zamine Ivan.*]
 ‘I want Ivan to leave.’
 (9) *θelo* [*na erθoun ta peđja.*] Grk
 ‘I want the children to come.’

To account for this difference, Krapova attributes to the modal particle a feature that varies in strength. In Bulgarian, the feature may be strong and attract the subject overtly, or it can be weak. In Greek it is weak and does not attract the subject in the overt component. According to this theory, postverbal subjects are not the result of movement to C of the particle and the verb, an alternative contemplated by several researchers in the past and also discussed by Roussou in this volume.

In “Control and Raising in and out of Subjunctive complements,” Anna Roussou explores two interrelated ideas. She first proposes that finiteness is a property of the Complementizer system interacting with the inflectional system and should not be associated just with tense or agreement. According to this view, complements of raising and control verbs appear similar, irrespective of whether they are in the infinitive or the subjunctive. The similarity resides in that these complements are reduced clauses that lack an agreement subject projection and possibly a finite position in the C system. Roussou then proceeds to unify control and raising under a new movement theory. Following Manzini and Roussou (1997), control involves the overt NP base generated (i.e., merged) in the matrix position attracting by movement from the main verb a thematic role as aspectual feature, and another thematic role from the verb of the embedded clause, which lacks a subject position; thus, the overt NP comes to be associated with two different roles. Agreement between matrix and embedded predicate is the result of this movement that pied-pipes ϕ features such as person and number. Raising to Subject is very similar, the difference being that only a

thematic feature is attracted to the subject generated in the matrix sentence, and it comes from the lower verb (agreement between the two predicates also follows).

Here, then, we have three alternative views on raising, control, and obviation, and new answers for two of the basic questions raised in this area of syntax and semantics concerning the languages of the Balkans.

Dalina Kallulli, in "Clitic Doubling in Albanian and Greek" deals with clitics as functional categories and with their syntactic and semantic effects on the clause. She studies doubled Accusatives, as in (10) with clitic and double shown in bold.

- (10) a. *An-a e lexoi libr-in.* Alb
 Ann-the it read book-the
 b. *I Anna to đjavase to vivlio.* Grk
 the Ann it read the book
 'Ann read the book.'

Clitic doubling is often cited among distinguishing characteristics of Balkan languages, and an early semantic discussion of (indefinite) doubling is found in Kazazis and Pentheroudakis (1976). Precise generative analyses for this phenomenon, however, were first proposed for Romance and Semitic languages (including Jaeggli 1982 and Borer 1984) and served as one of the bases for the rich syntactico-semantic analysis of Greek by Anagnostopoulou (1994). In these and other works that we leave uncited, doubling is variously related to the animate, human, specific, definite, or referential features of nominal expressions. Kallulli takes a different position by arguing that in Albanian and Greek, Accusative doubling indicates that nominal expressions are defocused, focus being defined as the most informative part of the utterance. Sentences with doubling as in (10) can be felicitous replies to *Who read the book?* (answer: Ann) or *What did Ann do with the book?* (Read (it)), but not to *What did Ann do?* (Read the book) nor to *What did Ann read?* (The book). In brief, doubling is possible when the subject or the verb are in focus, but not when the direct object is in focus. In this, Kallulli differs from Anagnostopoulou, who speaks of definiteness and referentiality as crucial factors. This semantic hypothesis is implemented structurally via Sportiche's analysis of clitic constructions (1995), which makes compatible earlier proposals on clitic movement (as in Kayne 1975) and on clitic base-generation (as in Jaeggli 1982 and Borer 1984, above). Namely, Kallulli adopts the idea that the clitic is base-generated as the head of a functional projection, and the double raises (covertly) to the specifier of this projection to check a feature, which is one current method to account for the co-occurrence of clitic and double. The relevant feature of accusative clitics in Albanian and Greek is determiner (D), so they must double determiner phrases (DP) not (bare) noun phrases (NP). As a result, definite and indefinite noun phrases as DPs may always be doubled; see (11). By contrast, bare singulars as NPs can never be doubled (12–13):

- (11) a. *An-a donte të-(a) blente nie fustan.* Alb
 Ann-the wanted të-(her) buy a dress

- b. *I Anna iþele na (tis) ayorasi ena forema.* Grk
 the Ann wanted na (her) buy a dress
 'Ann wanted to buy a dress.'
- (12) a. *An-a donte tË blente fustan.* Alb
 Ann-the wanted tË buy dress
- b. *I Anna iþele na ayorasi forema.* Grk
 the Ann wanted na buy dress
 'Ann wanted to buy (a) dress.'
- (13) a. **An-a donte t- a blente fustan.* Alb
- b. **I Anna iþele na tis ayorasi forema.* Grk

Here, then, we have some new ideas on how the parallel accusative doubling of Albanian and Greek relates to information structure, combined with a recent analysis of clitic constructions in Universal Grammar.

The essays by Androusoyopoulou and Rivero that close the volume deal with topics with a shorter history in the development of generative theory that have received considerable attention in recent years: the movements of nouns and verbs and their respective relationship to the functional structure of the noun phrase and of the clause.

While the argument structure of noun phrases is counted among traditional topics in generative grammar, the study of the functional structure of such phrases bears more recent dates. Interest in this topic was sparked by the DP hypothesis, or the idea, developed most prominently by Abney (1987), that noun phrases consist of a determiner heading a functional projection with the noun phrase as complement. Among Balkan languages, it seems that Romanian first attracted attention from this new perspective (Dobrovie-Sorin 1987, Grosu 1988), but considerable work on this and other Balkan languages soon followed. Arnaudova (1996) provides a useful list of references on the topic and summarizes the main positions as to the analysis of adjectives.

In "Adjectival Determiners in Albanian and Greek," Antonia Androusoyopoulou touches on several connected aspects of the functional structure of DPs. Her main aim, however, is a precise analysis of the determiners that are shown in bold and precede the adjective in the examples in (14) and related structures. Such items, glossed DET and dubbed *adjectival determiners* accompany in Albanian the determinerlike noun suffix *-in*, and in Greek the pronominal or first determiner *to*.

- (14) a. *djal-in e mirË.* Alb
 boy-the DET good
 'the good boy'
- b. *to vivlio to kalo.* Grk
 the book DET good
 'the good book'

Androutsopoulou's analysis of these patterns is intended to account not only for similarities between the two languages, but also for differences, which include how definiteness is marked. For her, adjectival determiners indicate reduced relative clauses with the phrase structure most recently proposed by Kayne (1994). To simplify: in both languages, the bottom of the phrase structure for these nominal expressions is a small clause with the noun as subject and the adjective as predicate. This small clause appears embedded in a functional structure whose top layer is a DP projection that takes another DP projection headed by the adjectival determiner as complement. Within this common structure, a major difference between the two languages results from how the highest D is filled via overt movement. In Albanian, the inflected noun *djal-in* raises out of the small clause and its final landing site is the D of the DP that closes the projection, that is, the highest DP; in this way the inflected noun comes to precede both the adjectival determiner *e* heading the complement or second DP and the adjective *mirë* that remains in the lower part of the structure. In Greek, the first determiner *to* and the noun *vivlio* constitute the subject of the small clause that raises, and this phrase lands in the Spec of the DP headed by the adjectival determiner, or the second *to* in the example. Subsequently, the *to* of *to vivlio* raises from the specifier of the second DP to the highest D. This means that raising a noun phrase involves not only head or X movement in Albanian, but also phrasal or X^{max} movement in Greek. Support for this hypothesis includes the observation that nouns preposed around adjectival determiners can in Greek be followed by their complements, as in (15), which is a sign of phrasal movement, while the same is impossible in Albanian, as illustrated in (16a). In Albanian, only the noun is preposed around the adjectival determiner, as in (16b), which is a sign of head movement.

- (15) *o thavmasmos ja ton Aristoteli o megalos.* Grk
 the admiration for the Aristotle DET great
 'the great admiration for Aristotle'
- (16) a. **Admirim-i për Aristotelin i madh.* Alb
 admiration-the for Aristotle DET big
 b. *Admirim-i i madh për Aristotelin.*
 admiration-the DET big for Aristotle
 'the great admiration for Aristotle'

Proposals by Pollock (1989) based on Emonds (1978) are the source of recent interest in V movement, as in French *Jean lit souvent t des livres* 'John often reads books,' with *lit* raising to a functional head past *souvent*. In "Last Resort and V Movement in Balkan Languages," Marfa Luisa Rivero compares Bulgarian and several stages of Greek, first proposing that in Bulgarian, rules that front V past the auxiliary or pronoun in (17) are stylistic (Chomsky and Lasnik 1977).

- (17) a. *Čel e knigata.* Blg
 read has book.the
 'He has read the book.'

- b. *Četeš ja.*
 read-PRES.2SG it
 'You are reading it.'
- c. *Četi ja!*
 read-IMP.2SG it
 'Read it!'

In minimalist terms, the difference between syntactic and stylistic V movements resides in the Last Resort Principle: syntactic rules apply to check formal features, while the stylistic rules operate in the PF branch to satisfy an output condition, not to check features. In other words, stylistic and syntactic V movements are similar. The stylistic rule raising V to the checking domain of an attractor most closely resembles a syntactic rule, as when V incorporates to *li* in C in questions: (*Pitam se*) *čel li e knigata* '(I wonder if) he has read the book?'. Still, this Bulgarian process is not driven by Last Resort, as no formal features in the attractor match those of the raising V; rather, V structurally supports *li*.

As to Greek, earlier stages resemble Bulgarian in displaying V rules with stylistic properties. In Bulgarian and medieval Greek, imperative Vs like that in (17c) can also follow the clitic; see (18a) and (18b). That is, stylistic rules do not check features, so they need not be obligatory.

- (18) a. *Ela i mi kaži!* Blg
 Come and me tell-IMP.2SG
 'Come and tell me!'
- b. *Alla me eipe.* MedGrk
 Other.things me tell-IMP.2
 'Tell me other things.'

Standard Greek, Cappadocian, and Cypriot Greek have undergone changes. In Standard Greek, clitic pronouns do not require support, finite V raising past a clitic is not found, and imperative raising is a formal feature-checking or syntactic operation and thus obligatory. In Cappadocian and Cypriot Greek, clitics require support, as in Bulgarian, and a rule raising finite Vs reminiscent of Bulgarian exists, but imperative raising is as in Standard Greek. Thus Greek is interesting in that it shows a diachronic connection between stylistic and syntactic imperative raising, and changes in this rule support the view that economy conditions like Last Resort define a core grammar that can be violated but only at a cost, which influences diachronic change. That is, irrespective of clitic requirements, imperative raising has been reinterpreted as the less costly formal feature-checking operation.

To conclude, contributions in this volume cover from an updated perspective a variety of topics on syntax and the PF and LF interfaces, including verb movement, the internal structure of DPs, clitics, complementizers, modal particles, agreement, negation, recent theoretical debates such as the *pro*/PRO controversy, control, and checking theory. The cross-linguistic perspective each paper affords is intended to deepen knowledge of what counts as universal, even though it may appear disguised as variation. We hope that those concerned with questions of generative theory and Universal Grammar, formal syntacticians,

comparativists of various persuasions, and those specializing in the Balkan languages irrespective of orientation will find this volume challenging and useful.

Note

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Is Balkan Comparative Syntax Possible?

Brian D. Joseph

1. Preliminaries

The question asked in the title to this paper might seem to have a self-evident answer, especially in the context of the other papers in this volume, all of which deal with some aspect of the syntax of two or more languages of the Balkans. However, it is not as irrelevant or trivial a question as it might at first seem, for despite the successes of these studies and others to be cited below with regard to taking a comparative perspective on the various languages in the Balkans, the logically prior question of whether it is in fact possible or even enlightening to do comparative Balkan syntax needs to be explored.

As a starting point, consider the following succinct statement of the goal of Universal Grammar: the determination of the ways in which all languages are alike and the ways in which they differ.¹ To that end, comparative syntax plays an important and even crucial role.

To illustrate the power of such an approach, one need only look at what has been accomplished regarding the *pro*-drop (or null subject) parameter, to choose one area that has been heavily investigated.² Taking a comparative perspective on *pro*-drop—the possibility some languages show of omitting overt expression of unemphatic subject pronouns in tensed clauses—has suggested various correlations between the possibility of such omitted (null) subjects and the occurrence of other syntactic and morphosyntactic phenomena. For example, the occurrence of overt subjects in expletive constructions such as those involving weather verbs or extraposition has been shown (Lightfoot 1991) to correlate with a language not allowing *pro*-drop, as in English or French, and the absence of such subjects with a language allowing *pro*-drop, as in Spanish. Similarly, Jaeggli and Safir (1989b:29–30) define “morphological uniformity” in verbal paradigms in terms of the structure of verb forms—a “uniform” paradigm being one in which forms are either all stem + affix or all bare stem, but not mixed, with some bare stem and some stem + affix—and suggest further that “null

subjects are permitted in all and only languages with morphologically uniform inflectional paradigms.”

Clearly, if only one language were looked at, it would be harder to be sure that any property that was identified as correlating with the possibility or impossibility of *pro*-drop was a significant one; thus comparison, and especially cross-linguistic comparison, is at the heart of the enterprise of universal grammar. Correlations such as these for *pro*-drop may indeed be wrong; for instance, the notion of morphological uniformity that Jaeggli and Safir promote seems to be of dubious value,³ and the very definition of a “*pro*-drop language” is far from clear-cut, as argued elsewhere (e.g., Joseph 1994), especially in the face of sentences from English, a putative non-*pro*-drop language, in which initial material including subjects can be deleted,⁴ and of the construction-specific reversal of the usual *pro*-drop setting in French and Greek.⁵ Still, without comparative syntactic methodology, no one would be in a position to evaluate such claims and correlations.

Examining the nature of null subjects is an example of doing comparative syntax by focusing on a particular construction or syntactic feature. Yet, there are other ways of focusing this enterprise, including looking at genetically related languages—the basis for comparative syntax in the traditional sense, for example, as practiced by Wackernagel (1892) in his classic study of an aspect of Indo-European word-order patterns—or a combination of the genetic and construction-specific approach, as with studies of clitics in Romance languages (e.g., by Kayne 1991 and others) or verb-second phenomena in Germanic (e.g., by Weerman 1989 and the authors represented in Haider and Prinzhorn 1986, among others).⁶

Yet another basis for the comparison of languages has been areal, comparing languages that are geographically related, and much interesting work has been done under this rubric in the comparative syntax of the languages of the Balkans. Included would be works examining, for example, from various perspectives within generative grammar, the structure of verb phrase and the domain of verb movement (Rivero 1990, 1994), the properties of subjunctive clauses and modal inflection vis-à-vis control phenomena and clitic climbing (Terzi 1992), the realization of Tough Movement constructions in languages with finite subordinate clauses (Joseph 1980, 1983), and multiple *wh*-questions (Rudin 1988), as well as the uncovering, within a more traditional descriptive framework, of numerous shared morphosyntactic and syntactic features such as the structure of the future tense, a postposed definite article, the pleonastic use of weak pronominal forms as verbal markers, and the general absence of nonfinite complementation, all presented by Sandfeld in his classic work (Sandfeld 1930) on the Balkan languages and discussed, along with others, in the enormous literature on Balkan linguistics.⁷

While the results of areally based comparative syntactic investigations have often served to shed light on aspects of Universal Grammar, an areal perspective has been especially interesting when the languages in question show other common characteristics that unite them, that is, when they show traits linking them as a “Sprachbund,” to use the German designation as a technical term in

English.⁸ A Sprachbund is an area where long-term intense and intimate contact among speakers of several different languages has led to massive structural convergence in languages that were once quite different from one another.⁹ The languages of the Balkans constitute perhaps the best-known and most deeply investigated case, but other examples include South Asia (Masica 1976) and Meso-America (Campbell, et al. 1986). Among the syntactic characteristics of these other Sprachbünde are, for South Asia, the use of conjunctive participles for serialization, SOV word order, and dative subject constructions, and for Meso-America, the occurrence of nominal possession of the type *his-dog the-man*, the absence of switch reference marking, and nonverb-final word order (vs. SOV languages in surrounding areas).¹⁰

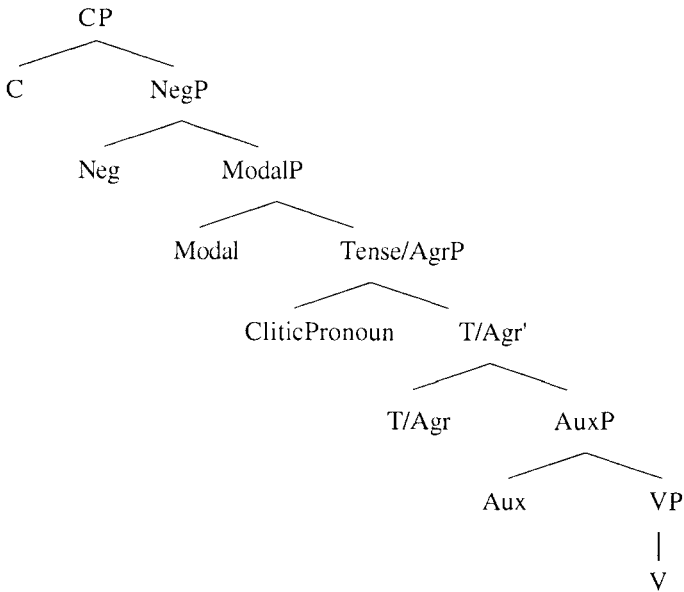
Still, some of these results, especially those from the generatively based investigations mentioned above, may well pose some problems when viewed from the Sprachbund perspective, since Sprachbund phenomena generally are attributed to language contact in some form. The exact nature of the contact that leads to a Sprachbund is often a matter of some controversy, in that there is debate as to whether it is substrate influence from one population shifting to a target language, superstrate influence of one language over the others in the area, massive bi- or multilingualism often of an imperfect sort, sociolinguistic accommodation, or some combination of such situations that has led to the convergence in the Sprachbund. Nonetheless, contact in some form is invariably responsible, and language contact would seem to be more of an accidental happenstance in the history of particular languages that could render comparative syntax less interesting than it might otherwise be.

It is valuable therefore to explore this issue more deeply; accordingly, in what follows, four ways in which the results of some types of comparative syntactic investigations are potentially problematic are discussed in some detail, with an eye toward determining whether the enterprise of comparative Balkan syntax is possible and if so, to what limits it is subject. With those issues addressed, some specific case studies involving negation in the Balkans are discussed in order to illustrate what different approaches to comparative Balkan syntax might yield in the way of insights.

2. Some problematic aspects of comparative syntax in the Balkans

First, it seems fair to ask whether the results that have been obtained from recent generative comparisons of the syntax of various Balkan languages are revealing beyond what might be found if one were to compare any arbitrary set of typologically related languages chosen on a basis other than geography. That is to say, especially when one realizes the role that language contact has played in shaping the Balkan languages, in what way does a claim about parallels in the structure of the clause among the Balkan languages advance our knowledge? For instance, the analysis given by Rivero (1994) for verb movement in the Balkans, which proposes the structure in (1) for the “Balkan clause”:

(1) Pan-Balkan Clause Structure (following Rivero 1994)



is interesting and well argued in its own right, but what does it show? In particular, it seems not to point to a uniquely Balkan clause structure, but rather merely extends to these languages analytic principles—in this case, the “exploded Infl” analysis given by Pollock (1989) for clause structure—which are assumed to be part of Universal Grammar. In that case, however, such an analysis seems to call into question any special value that might be posited for Balkan syntactic parallels. That is to say, if the analysis assimilates Balkan verb structures to well-known universal principles, then this is really a matter of comparative syntax more generally, not comparative Balkan syntax in particular. Moreover, given that the Sprachbund effect is a matter of some type of language contact, one can legitimately wonder if any of the results obtained by such an analysis provide insights into the Balkan Sprachbund as a contact induced phenomenon.

Such criticisms are to be leveled not just at relatively recent work of this type. The same could be said of the results reported in Joseph (1980; 1983: 232ff.), for instance, where a possible parallel was identified between Greek and Romanian in the realization of Tough Movement in a language without an infinitive. As indicated in (2), it was claimed that in each of these languages, as the earlier infinitive was replaced by finite subordinate clauses, constructions developed that avoided having an transitive complement verb that is both finite and objectless; this was achieved in Greek through a copying type of Tough Movement, as in (2a), in which a pronominal object in the subordinate clause copying the “raised” nominal renders the transitive verb nonobjectless, and in Romanian by a “passive” type of Tough Movement, as in (2b), in which the

subordinate clause is passivized through the reflexive passive construction and is thus detransitivized:

- (2) a. *Ta angliká;* *íne* *ðiskola* *na*
 the-English-NTR.NOM.PL are-3PL difficult-NTR.NOM.PL SUBJ
ta; *katalávi* *kanís.*
 them-NTR.ACC.PL understand-3SG someone-NOM.SG
 ‘English is difficult to understand.’ (lit. ‘‘The-English (things) are
 difficult that someone understand them.’’)
- b. *Asta nu-i* *greu sã* *se* *facã.*
 this not is-3SG hard SUBJ REFL do-3SG
 ‘This is not hard to do.’ (lit. ‘‘This is not hard that it be done.’’)

Still, even if of interest, the parallel seen here is a rather abstract and ‘‘deep’’ one. Moreover, it cannot be a matter of language contact since the form of the construction in each language is quite different, involving what can descriptively be called copying in Greek but is a reflexive or passive formation in Romanian. Rather, the parallel seems to have to do with a universal tendency in Tough Movement constructions, whether the result of a syntactic rule or the outcome of other rules, to ‘‘prefer’’ or select a nonfinite complement, as reflected in the prevalence of nonfinite subordinate clauses cross-linguistically in Tough Movement sentences. Thus, if, due in large part to some aspect of Universal Grammar, the cross-linguistic tendency is to be captured formally, the parallel is not very interesting from a Balkanological point of view, though it does provide additional input into the universal characterization of Tough Movement.

Such examples therefore do tell us something, but they do not reveal anything about Balkan-particular characteristics, or at least not in the same way as does finding parallel structures such as those noted above in section 1. That is, it has been taken to be quite significant with regard to their common development that many languages in the Balkans exhibit (to take four widespread and commonly noted Balkan features) a future tense with an invariant prefixlike marker based—historically at least—on a verb meaning ‘want’, as in (3a); a definite article that is postposed within the noun phrase, as in (3b); the use of pleonastic weak personal pronouns coindexing object noun phrases and thus serving roughly as object agreement markers or transitivity markers on the verb, as in (3c); and finite (i.e., person-marked, tensed) subordinate clauses where English and many other European languages, at least, use nonfinite complementation, as in (3d).¹¹

- (3) a. Alb *do (të) punoj* = Blg *šte rabotja* = Grk *θα ðulévo* (< earlier *the (na) ðulévo*) = Rom *o sã lucrez*
 ‘I will work.’ (historically, ‘‘wants-(that)-I-work’’)
- b. Alb *ujk-u* = Blg *vũlk-kũt* = Rom *lup-ul* ‘the wolf’ (lit., ‘‘wolf-the’’)
- c. Alb *e pashë Gjonin* = Blg *gledax go Ivan* = Grk *ton íða ton jáni* = Rom *l’am vãzut pe Ion*
 ‘I saw John.’ (lit. ‘‘him I-saw (the-)John.’’)

- d. Alb *përpiqem të ndihmoj* = Blg *opitvam se da pomogna* =
 Grk *prospathó na voiθíso* = Rom *încerc să ajut*
 ‘I try to help.’ (lit. “I-try that I-help”)

Given that these parallels are not the result of a common inheritance from Proto-Indo-European¹² and that they represent a divergence from earlier stages of each of these languages, the convergence they show is striking and provides an important starting point for an investigation into the language contacts that gave rise to them. Such, however, is not the case with parallels that can be attributed to the workings of Universal Grammar.

Second, as some of the features discussed here already show, the syntactic similarities found in Sprachbünde and other contact situations tend to be superficial in nature and are really a matter of a convergence in surface structure, rather than in deep structure or a set of rules by which underlying forms are realized on the surface. The Balkan features illustrated in (3), for instance, can all be readily described in terms of gross surface patterns—what may be characterized as “target structures” that speakers aim at—and such is the case also with the convergent verb serialization structures that, as noted above, are found in many South Asian languages, with convergent word order patterns such as the South Asian OV structures or the Meso-American non-verb-final order, and with the *his-dog the-man* expression of possession in Meso-America, where the target structure is a desired output. Similarly, in the ongoing contact situation in Kupwar village of Maharashtra state in India involving Kannada, Marathi, and Urdu speakers, as described by Gumperz and Wilson (1971), among the convergences is the Kupwar Kannada use of ‘be’ after predicate adjectives, paralleling the Marathi and Urdu surface pattern and diverging from the Standard Kannada absence of ‘be’ in that context.

Languages in such situations may show “deeper” similarities or even differences in the ways these surface forms are generated synchronically (or, more generally, are integrated into the grammars of individual languages), but the surface forms themselves, the output of generative rules of syntax, would seem to be the critical level at which to judge similarities that would reveal the existence of a Sprachbund. For instance, it would not matter what the processes are in individual languages that lead to basic verb-final order in South Asia, for example, whether it is an underlying SOV order or an obligatory object-fronting process from an underlying SVO order, or something else, as long as the surface similarity is there, the phenomenon will be salient for linguists and presumably, more important, for the speakers, too. Alternatively, if the processes by which verb-final order is generated in a language are so constrained by Universal Grammar that there is really just one possibility and no other options, then all that matters is the presence of the target structure in the language output, not the processes that give rise to it. In such a case, Universal Grammar would be responsible for the deep similarity, and the structure would thus be uninteresting from the Sprachbund perspective of language contact.

Within the Balkans, this situation can be illustrated by the convergence involving perfect-tense formations with the verb ‘have’, where a superficial

similarity has long been noted¹³ between Albanian and Macedonian regarding the fact that they both have a past perfect consisting of the past tense of 'have' with a (generally passive)¹⁴ participle, Greek can be added to this as well,¹⁵ for example, Alb *kisha lidhurë* 'I had tied', Grk *íxa ðeméno* 'I had tied',¹⁶ and Mac *imav storeno* 'I had made'. However, as Friedman (1983) remarks, "[although] the superficial resemblance between the Macedonian and Albanian forms has been noted at least since Sandfeld, these forms play very different roles in the structure of their respective languages", especially in terms of the relationship to other verb tenses and formations in each language. Thus there are deeper differences in how these forms are embedded in their respective verbal systems, yet such differences are irrelevant to the similarity the forms show in terms of surface structure.

Such an emphasis on surface structures is really to be expected if the basis for the spread of such features—that is, the basis for the development of contact-induced areal convergences—is at least limited bilingualism, transfer, and reverse interference, for surface forms are the point of contact between speakers. It should also be noted in this regard that lexical borrowing, which is a quintessentially surface-oriented phenomenon that is widespread in the Balkans, can easily shade off into construction borrowing and thus into the realm of syntax. This point can be illustrated by the Greek construction exemplified in (4a) consisting of repetitions of a perfective verb form with the morpheme for 'not' sandwiched in between, but with the meaning 'whether one VERBs or not'. This construction, as noted by Banfi (1985:80), occurs with the verb 'want' in several Balkan languages, as in (4b), the form being third person plural in Albanian and the Turkish negation following the usual suffixal pattern for the language.¹⁷

- (4) a. Grk *fíji ðe fíji*
 'whether one leaves or not'
- b. Grk *théli ðe théli* = Blg *šte ne šte* = Rom *vrea nu vrea*
 'whether one wants to or not'
- ≈ Trk *ister istemez*
 'willingly or not' (lit. "want-AORIST.3SG want-NEG.AORIST. 3SG")
- ≈ Alb *donin s'donin*
 'whether they want to or not'

One interpretation of these facts that suggests itself, in the face of the mild productivity it shows in Greek and the widespread occurrence of the 'want' formation, is that the 'want' construction is the starting point, which has spread via loan translation throughout the Balkans; but this borrowing has become the basis for extension to other verbs, with the result that it has become a syntactic pattern rather than just an isolated lexical form. In such a view, it is hard to distinguish something that is in essence lexical borrowing of a phrase from the borrowing of what is in essence a syntactic pattern. A surface borrowing can thus have repercussions into and throughout the syntax.

If similarities in contact situations are focused on the surface, it therefore becomes potentially problematic to view the syntactic similarities among Balkan languages in terms of deep syntactic features such as parameter settings, as Rudin (1988) did, for instance, for parallels in multiple *wh*-question constructions in Bulgarian and Romanian. Sprachbund significance for such features would be inconsistent with their deep nature, since the “action” in language contact, so to speak, is at the surface, not at a deep level, yet contact is crucial for the development of a Sprachbund.

Third—and this is a problem that pervades much of Balkan linguistics—most of the relevant studies¹⁸ have been based just on a comparison of the modern standard languages, when in fact the crucial period for the “Balkanization” of all the languages in the Balkan Sprachbund was some 400 to 700 years ago and involved contact at the level of the regional dialects, not of the standard languages. Instructive here is the observation made by Masica (1976) and seconded by Campbell et al. (1986) that some linguistic areas are “the relics of past contacts, no longer active and others are in the process of formation and extension because of on-going interaction and change” (Campbell et al. 533). Most of the features that make the Balkan Sprachbund interesting are ones that are the result of past contacts, not ongoing contact in the present day.

In a sense then, looking at an on-going contact situation such as that mentioned above involving Urdu, Marathi, and Kannada speakers in Kupwar is more crucial for understanding the Balkan Sprachbund than are constructs from modern syntactic theory. Similarly, current contact within Greece involving standard Modern Greek interacting with Arvanitika, the variety of Tosk Albanian spoken in Greece for some 600 years or more, or Aromanian, also known as Vlach, the variety of Romanian spoken in Greece for at least several centuries, provides important insights into the formation of the Balkan Sprachbund, for these typically village-based situations approximate the contact situation in the Balkans 600 years or so ago in ways that an examination or comparison of the various present-day, generally urban-based, standard languages cannot. What one sees in examining the urban standards is perhaps the aftereffects of contact several centuries ago, but it is not such a direct window on the conditions that gave rise to the Sprachbund effects.

As an example¹⁹ of insights from such relatively recent contact in the Balkans, consider the following, which involves the assimilation of the interpretation of the understood subject with the gerund in Arvanitika to the current Greek pattern for the present active participle (or “gerund”) in *-ondas*. In what is the result of an innovation that most likely took place in fairly late Medieval Greek, given the fixing of the current form of the gerund in that period,²⁰ the Modern Greek *-ondas* form permits an interpretation of its understood subject as coreferent only with a main-clause subject, as in (5):

- (5) *O jánis_i íðe ti maria_j perpatóndas_{i/*j} s to ðrómo.*
 the-John-NOM saw-3SG the-Mary-ACC walk-GRD on the-road
 ‘John saw Mary while he/*she was walking on the road.’

In standard Albanian, however, based on the Tosk dialect, either subject or object control of understood subject of a gerund, for instance, *duke ecur* '(while) walking', is possible, as indicated in (6):

- (6) a. *Njeri_i afrohej [Ø_i duke ecur.]*
 man-NOM.SG.INDEF approached-3SG.IMPF GRD walk-PPL
 'A man was approaching (while) (he was) walking.'
- b. *Vajza_i pa njeri_j [Ø_{i/j} duke ecur.]*
 girl-NOM.SG.DEF saw-3SG man-ACC.SG.INDEF GRD walk-PPL
 'The girl saw the man (while) (she/he was) walking.'

In Arvanitika, on the other hand, even though it is also part of the Tosk dialect group, one finds only subject control, as in Modern Greek. Therefore, the influence of Greek on Arvanitika is likely, with the pattern of interpretation for the gerund in Arvanitika being influenced by the Greek pattern, based on recognition by Arvanitika speakers that the Greek form and the Arvanitika form are parallel, to be identified cross-linguistically as being the same type of grammatical element. Significantly, such an identification is ultimately surface based and is precisely the sort of development one expects to find in intense contact situations where there is at least some bilingualism. Although it is not clear exactly when the change in Arvanitika took place, it is most likely to have been recent, after Arvanitika speakers became increasingly bilingual; indeed, such bilingualism is the norm in virtually all Arvanitika communities nowadays, with the younger generation tending toward exclusive use of Greek. Nonetheless, in the period of widespread bilingualism, these Arvanitika communities mirrored aspects of the multilingual villages prevalent in the Balkans in centuries past and thus provided a window of sorts onto the conditions of the past.

Fourth, as the discussion of the 'have'-perfect already demonstrates, much of what is attended to in Balkan linguistics is similarities among languages, without as much attention being paid to the differences these languages show. This is more true of traditional descriptive studies, perhaps, than more recent generative studies, for the latter generally attempt to develop a typology according to which the languages under investigation can be said to fall into one or the other class of languages. However interesting the differences might be, though, and however important it might be to investigate them—for only by knowing the extent of differences can we judge whether there really are significant similarities—they are not something that arises by language contact, so in a sense they fall outside of the purview of at least traditional Balkan linguistics.

These four issues loom large in any attempt at comparative Balkan syntax, but they are not insurmountable. In what follows, a path toward their resolution is charted.

3. Toward a resolution

Once one takes all of these problems into consideration, it becomes clear that a Balkan comparative syntax is indeed possible, but the success of the enterprise

depends on what one's goals are. For example, for the purposes of tying any results into the Sprachbund phenomenon so well documented for the languages of the Balkans, the most enlightening comparisons will be those involving surface phenomena, which are likely to be transferred in language contact situations. On the other hand, comparisons involving parametric variation or parallels at deeper levels of structure are illuminating insofar as they shed light on Universal Grammar, for instance, or clarify the extent of a superficial similarity, although they do not provide any input into an understanding of the contact that created the Balkan Sprachbund.

What is most useful here as a means to a resolution is a distinction that draws on and is somewhat analogous to Schaller's (1975) distinction between "language of the Balkans" (a purely geographic designation that takes in any language that occurs within the geographic bounds of the Balkans) and "Balkan language" (a designation for those languages of the Balkans that participate in the Balkan Sprachbund and show parallels due to language contact). Using that dichotomy as a basis, one can distinguish between working on the "comparative syntax of the Balkan languages," that is, examining the syntax of individual languages of the Balkans in comparison with other languages of the Balkans and elsewhere, and doing "comparative Balkan syntax," that is, examining the syntax of Balkan languages keeping the Sprachbund in mind. Even more generally, one can further distinguish "linguistics of the Balkans" from "Balkan linguistics," the former being the analysis of the languages in and of themselves, the latter being the analysis with regard to Sprachbund.

The recognition of such a distinction means that the different aims of comparative syntax can be clarified. Just as the distinction between "language of the Balkans" and "Balkan language" is a useful one, so too are the ones proposed here for comparative syntax and for studying the languages in the Balkans more generally. The goals of each enterprise are different, and thus success is measured in different ways.

With all this now in place, a discussion of some facts concerning negation in the Balkans can be examined as case studies where both types of perspectives can fruitfully be taken.

4. Two case studies in Balkan negation

4.1. M-negators

The first area of interest starts with the formal parallels evident in one of the negation markers in both Greek and Albanian, as well as in most non-Vlax dialects of Romany (the language of the Gypsies) spoken in the Balkans. In each of these languages, a negator beginning with [m] is found for nonindicative negation, as well as some other functions discussed later on; the forms in question are Modern Greek *mi(n)* (Ancient Greek [mê] <μή>), Albanian *mos*, and Romany *ma*.

There are clear cognate forms elsewhere in Indo-European to these Balkan #*m*-negators, and the paths of development to the attested forms are well understood. In particular, Sanskrit *mā*, Avestan *mā*, and Armenian *mi* all point to a Proto-Indo-European **mē* as the source for the Greek, Albanian, and Romany forms, and Tocharian *mā* is generally taken to do so also.²¹ Ancient Greek *mē* continues PIE **mē* directly, from which Modern Greek [mi] developed by regular sound change; the final *-n* found in some forms of *mi(n)*, especially those marking verbal negation, was added to inherited *mi* by analogy to the finite verbal indicative negator *den*, which itself derives from Ancient Greek [oudén] (<οὐδέν>) ‘nothing; not at all’. As for Albanian, *mos* derives from a composite **mē-k^Wid* (‘not’ + ‘anything’) by regular sound change; *sorrë* ‘blackbird’ from **k^Wērsnā*, for example, provides examples of the vowel development of **ē* to *o*, the assibilation of **k^W* to *s* before a front vowel, and to a certain extent also the reduction of the final syllable needed to derive *mos*. An Indo-European “pedigree” for present-day Balkan *mi/mos/ma* guarantees that the Turkish general negation marker—*me/-ma*—is not in any way responsible for the occurrence of *m*-negators in these other Balkan languages, however unlikely such a scenario might be in any case.

Due to a lack of sufficient information about the range of uses of *ma* in Romany, attention hereafter is focused on the Greek and Albanian *m*-negators. Similarly, even though a form [mi] occurs in the expression of a negative imperative (i.e., a prohibition) in the Macedonian spoken in the area around Thessaloniki, at least into the first half of the twentieth century, this occurrence seems clearly to be a matter of the borrowing of the Greek formation into Macedonian, as discussed most recently by Topolinjska (1995:310), most likely through the medium of bilingual speakers; thus, it is not of immediate concern here.

Besides the formal parallels, there are a number of functional parallels between Modern Greek *mi(n)* and Albanian *mos*. The various functions these elements fulfill are given in (7), and examples of these uses are given in (8), with the two displays following the same order of presentation for these uses; *mi(n)* and *mos* are glossed as *mi* and *mos*, respectively, and some relevant explanatory details about various of the uses are included in parentheses:²²

(7) *Functions of Balkan m-negators*

- a. modal negator (in Grk, of subjunctive clauses; in Alb, of subjunctive and optative verbs)
- b. nonfinite negator (in Grk, of active participles; in Alb, of active participles (gerundives) and the infinitival formation)
- c. introducer of prohibitives and negator of hortatives (in Grk, with finite verb forms, not with imperatival forms per se; in Alb, with imperatives and hortatives)
- d. introducer of negatively evaluated clausal complements to verbs and nouns of fearing (in Grk, on its own as complementizer or with another morpheme in *mípos*; in Alb, with complementizer *se* (as *se mos*), though cf. (h) regarding another interpretation of *se mos*)

- e. introducer of tentative main-clause questions (in Grk, with variant *mípos*)
- f. independent utterance expressing negative actions (i.e., prohibitions)
- g. negative combining element in word formation (in Grk, in isolated formations; in Alb, more productively)
- h. pleonastic negator in clausal complements to heads with negative force (in Grk, e.g., *emboðizo* ‘prevent’; in Alb, e.g., *frikë* ‘fear’, thus overlapping somewhat with (d))
- i. negator of ellipted (i.e., “understood”) elements
- j. negator of nonverbal lexical items and constituents (not in Alb, unless (g) belongs here, or vice versa)

(8) Examples of uses in (7) (i = Grk; ii = Alb)

- a. i. *Borí na min éxun kimiθí.*
 can-3SG SUBJ mi have-3PL slept
 ‘It is possible that they haven’t gone to bed yet.’ (lit., “It can that they have not slept.”)
- ii. *sikur të mos jetë bujku usta*
 if SUBJ mos be-3SG.SUBJ farmer-NOM.DEF craftsman
 ‘if the farmer were not a craftsman’
- b. i. *Min éxondas iðéa ja óla aftá,*
 mi have-ACT.PPL idea-ACC about all-these
o jánis tin pandréfrike.
 the-John-NOM her-ACC married-3SG
 ‘Not having any idea about all these things, John married her.’
 (Veloudis 1982.22)
- ii. *për të mos e marrë /duke mos marrë asgjë*
 INFINITIVAL mos him take-PPL/GRDV mos take-PPL anything
 ‘in order not to take him’ / ‘(while) not taking anything’
- c. i. *Min to petáksis!*
 mi it-ACC throw-2SG
 ‘Don’t throw it out!’
- ii. *Mos u bëni merak!*
 mos NONACT make-2PL care
 ‘Don’t worry!’
- d. i. *To éskase apó fóvo min ton xtípísun.*
 it-ACC burst-3SG from fear-ACC mi him-ACC beat-3PL
 ‘He ran off for fear that they might beat him.’
 (Mackridge 1985.300)
- ii. *Kam frikë se mos na shajë.*
 have-1SG fear that mos us-ACC scold-3SG

'I fear lest he scold us.'

- e. i. *Min íðes to peði?*
 mi saw-2SG the-child-ACC
 'Did you perhaps (happen to) see the child?'
- ii. *Mos e njíhni atě?*
 mos him know-2PL him-ACC
 'Do you (perhaps) know him?'
- f. i. *Mi!* (NB: **min!* (with final -n))
 'Don't!'
- ii. *Mos!*
 'Don't!'
- g. i. *míte* 'not even; neither' (cf. *úte* 'not even; neither' for segmentability); *míðén* 'nought; zero' (cf. the finite indicative negator *ðen*); *míðé* 'not even; neither' (infrequent; cf. *uðé* 'not even; neither'); *mípos* (variant of *mi(n)* in main-clause tentative questions and with complements to verbs and nouns of fearing, and cf. complementizer *pos* 'that'); *míyár(is)* 'perhaps' (in tentative questions; rather infrequent—note that *míyaris* also occurs, even more rarely)
- ii. *mosbarazi* 'inequality' (cf. *barazi* 'equality'); *mosbesim* 'mistrust' (cf. *besoj* 'I trust'); *mosnjohje* 'ignorance' (cf. *njoh* 'I know'); *mosqeni* 'nonexistence' (cf. *qeni* 'being'), etc.
- h. i.' *Fováme na min érði.*
 fear-1SG SUBJ mi come-3SG
 'I am afraid that he may come.' (NB: ≠ 'I am afraid he may not come.')
 (Veloudis 1982.11)
- i." *ðe se emboðízo na mìn milás.*
 NEG you-ACC prevent-1SG SUBJ mi speak-2SG
 'I do not prevent you from speaking.' (NB: ≠ 'I do not prevent you from not speaking.')
 (Thumb 1964.200)
- ii. *Kam frikě se mos na shajě.*
 have-1SG fear that mos us-ACC scold-3SG
 'I fear lest he scold us.'
- i. i.' *Parkarizměna ke mi aftokínita ítan pandú.*
 parked-NTR.PL and mi automobiles-NTR were everywhere
 'Parked and unparked cars (i.e., 'Cars that are parked and (ones that are) not (parked)) were everywhere.'

i." *Mi ta xérja su ékso.*
 mi the-hands-ACC your outside
 'Don't (put) your hands out!'
 (Mackridge 1985.244)

i.'" *Mi xirótera*
 mi worse-NTR.PL.COMPVE
 'What next? God forbid!' (lit. "(May) not worse (happen)!")

ii. *si mos më keq*
 how mos COMPVE bad
 'in a lamentable state' (lit. "how (might) not worse (happen)?")

j. i.' *se períptosi mi pliomís tis epitajís*
 in case-ACC mi payment-GEN the-check-GEN
 'in (the) case of nonpayment of the check'

i." *I mi kapnistés káthonde eðó.*
 the mi smokers-NOM sit-3PL here
 'Nonsmokers sit here.'

ii. [No examples unless some of (g) belongs here]

The lists and examples in (7) and (8) show that there are some rather striking parallels between Greek and Albanian with regard to the use of their respective *m*-negators. In fact, only the last, constituent negation, is found just in Greek, and otherwise the overlap is considerable. Still, there are some differences as well to note in their use, beyond any signaled in the parenthetical notes in (7).

For one thing, as a word-formative element, the *m*-negators show differences in productivity. In particular, the *míte* type of formation is rather limited in Greek, but *mos-* is a fairly productive derivational element in Albanian, especially with deverbal nouns in *-im*. If, however, *mos-* in this function is paralleled actually by *mi* as a constituent negator, as in (7/8j)—for instance, *mi pliomí* 'nonpayment', *mi kapnistís* 'nonsmoker'—then both are fairly productive, and Albanian would then have the full range of uses found in Greek.

Second, Albanian *mos* is used for negation in conditionals, for example, *në mos gaboj* 'if I am not mistaken', while Greek now uses the finite indicative negator *den* in such constructions, for example, *an den se pistépo* 'if I don't believe you'. For Greek, this use of *den* is found for at least (twentieth century) demotic Greek—the situation in Ancient Greek and in at least early twentieth century katharevousa Greek was different,²³ with conditional clauses negated with the *m*-negator. The causes of the change to use of the indicative negator in conditionals in Greek may be tied up with the development of moods and thus is tangential to the matters at hand here, but in terms of what to compare between Greek and Albanian, this change means that care must be taken. Similarly, with regard to verbal moods used with the *m*-negators, in prohibitives (cf. (7/8c)),

Albanian *mos* is used with imperative mood forms, while Greek *mi(n)* is used with nonimperative forms; given this distribution, the Albanian prohibitive usage could be taken simply to be a case of nonindicative negation, as in (7/8a), while Greek shows a special usage that does not reduce to nonindicative negation, inasmuch as *mi(n)* cannot be used with the imperative. Moreover, following up on prohibitive uses, it should be noted that independent *mos*, besides the prohibitive value it has (cf. (7/8f), which is paralleled in Greek, can also have nonprohibitive exclamatory value, as in (9), while in Greek independent *mi* has only prohibitive value:

- (9) *Është vrarë Kajoja! Mos!*
 is-3SG slain-PPL Kajo-NOM.DEF mos
 'Kajo has been slain! Oh No!'

Finally, the question-particle use in (7/8e) is broader for Albanian *mos* than for Greek *mi(n)*. In particular, *mos* can have overt negative dubitative value, while *mi(n)* is only dubitative (and thus at best only weakly negative).

- (10) *Mos është e fortë?*
 mos is-3SG strong-FEM
 'She isn't strong, is she?'

The approach taken here in the presentation of these similarities and differences has primarily been of a pretheoretical, somewhat descriptive and informal sort. Still, these facts are of some interest in regard to formal and comparative issues. For instance, they raise interesting questions concerning the extent to which these functions are all really separate or instead can be collapsed: for example, does the question usage in (7/8e) involve some negative force, especially for Greek, in the same way that the modal negation does? Also, are all the *m*-elements that are employed here the same formal element in some relevant sense? It is noteworthy in this regard that in Greek some instantiations, particularly those attached to verbs, allow a final *-n* before vowels and some consonants,²⁴ as the examples in (8a)–(8e) show, while some, for instance, the independent prohibitive utterance (8f), prohibit it, and so forth. Ultimately, a theory of morphology and indeed even a semantic theory should have something to say about such questions,²⁵ but they are relevant too for issues in the formal syntax of these languages.

The independent word status of the prohibitive utterance in (8f), for instance, has been taken by Rivero and Terzi (1994) as part of the evidence for treating negation in Greek as being formally distinct from clitic pronouns in terms of their blocking properties in verb movement to Comp. There are indeed differences that permit such an interpretation, and further more, there is good evidence that the clitic pronouns of Greek are best analyzed as affixes—as morphological entities and not syntactic ones (as argued in Joseph 1988, 1990). Still, if the independent prohibitive utterance is a distinct element from the verbal negator, as their differential behavior regarding final *-n* could suggest, then part of the evidence for treating negation in the verb phrase as having

special properties distinct from the so-called clitic pronouns evaporates. Albanian would be more amenable to such an argument, since there are no formal differences between the independent prohibitive utterance *mos* and the verbal negator.

Returning to the matter of the potential Balkanological import of these comparisons made between Greek and Albanian with regard to their *m*-negators, crucial to any insights here is consideration of the historical development of these various functions in these languages. The following observations are critical in the evaluation of these facts.

First, all of the functions in (7) for *mi(n)* are found in Ancient Greek for *mē* except for (7f): in the entirety of the Ancient Greek corpus, there are no instances of the independent usage of *mē* expressing negative actions, such as prohibitions, except in ellipsis, where it occurs with other words, as in (7i). An example of the elliptical prohibitive is given in (11):

- (11) *mē moi su* (Euripides *Medea* 964)
mē me-DAT you-NOM
 ‘None of that to/for me!’ (lit. “Not to-me you” (with an understood 2SG verb such as ‘give’ or ‘do’))

Moreover, there are parallels elsewhere in Indo-European to most of the other functions, except again the independent prohibitive utterance usage (though the non-prohibitive exclamatory value of the independent negative utterance has a parallel in Sanskrit),²⁶ the tentative question usage, and the use with complements of fearing. Given that Ancient Greek had both the question usage and the ‘fear’-complement usage and that there are numerous uncertainties about the pre-history of Albanian, it is tempting to think of these Greek-Albanian parallels as innovations that spread from Greek to Albanian; but such a spread would have occurred, if at all, in an early, pre-Balkanizing period of contact between the languages. Alternatively, the occurrence of both the question usage and the ‘fear’-complement usage in Ancient Greek and Albanian could be taken to warrant positing these as inheritances from Proto-Indo-European, even if they are not found elsewhere in the Indo-European family.

What all this means is that of the various uses without solid comparative justification as inheritances from Proto-Indo-European, the independent prohibitive utterance use (7f) has the best chance of being a real Balkan innovation, since it clearly must have arisen in Greek after Ancient Greek. It may well have come about as an extension of the elliptical use understood as a prohibition, as in (7/8i), though it is not clear whether it spread from Greek to Albanian or vice versa or was an independent creation in each language.

It is important to note, however, that this is exactly the sort of word that one might suppose would be very frequent in everyday contact situations, so that it is a good candidate for having spread in the intense contact and (often imperfect) bilingualism that gave rise to the Balkan Sprachbund. A speaker of one of these languages, when confronted with a parallelism between their *mi* and another’s *mos* (or vice-versa), could easily have noted a difference in the extent of usage of the form in the other language and could have used that as the model for

extending their use of their own native element. As a calque, then, a sort of loan-translation, it would have been transmitted superficially, but it could have been integrated into the receiving language differently from the way it fits into the syntactic structure of the model language. Thus, what would be most salient from the point of view of the speakers who are in contact with one another would be the function that particular surface forms have, for that is where the model for the calque and extension would be found.

In such a case, therefore, working out the formal and sometimes abstract details of where each element fits in its respective system is certainly important, but more for the syntax of the individual languages than for comparative syntax of the Balkan languages; the comparative Balkan aspect, in terms of what is revealed for the Balkan Sprachbund (that is, for comparative Balkan syntax), focuses more on the surface and on the function. Nevertheless, tracing the history of the forms and their respective functions in each language highlights a possible Sprachbund feature,²⁷ the independent prohibitive use of an *m*-negator, thus contributing to the goal of comparative Balkan syntax in the sense developed above. Even if it should turn out that this usage arose independently in each language, so that it is not a contact-induced feature in one of the languages, the identification of a possible shared feature through comparative syntax is crucial to determining the extent to which the feature is a syntactic Balkanism—an aim of a true comparative Balkan syntax.

4.2. “Negative fusion”

Another set of negation facts to be considered here is more of the other sort, that is, interesting from the perspective of comparative linguistics of the Balkans (as opposed to comparative Balkan linguistics).

At issue here is a phenomenon that can be referred to as “negative fusion”: the joining of a negative marker with a verb to form a single word unit. An example from earlier stages of English is Old English *nille* ‘not wants’, which represents the negative marker *ne* fused with *wille* ‘he/she wants’. To a certain extent, negative fusion is found in Modern English too, in the analysis of Zwicky and Pullum (1983) whereby *-n’t* is not merely a syntactically generated clitic form of *not* but rather is a morphologically generated affix; thus, *won’t*, in their view, does not synchronically represent a reduction of *will + not* but rather is an independent formation with *n’t* being an affixal realization of the feature of negation.²⁸ Moreover, the degree of fusion can vary within a language, for alongside the fused *-n’t* in English there is the more independent free form *not*, seen in (12a) and (12b); however, even *not* shows some degree of dependency, as it is generally separable from most auxiliaries, as in (12a) and (12b), but nonetheless cannot be separated from *do*, as shown by (12c) and the contrast between it and (12a), (12b), and (12d):

- (12) a. *John will definitely not win*
 b. *John must definitely not win*

- c. **John did definitely not win*
 d. *John definitely did not win.*

Within the Balkans, a wide range of evidence for negative fusion is available. In South Slavic, for instance, there are isolated grammaticalized and fully unverbated forms in which the negative marker has fused with the verb—for example, the prohibitive marker *nemoj* found in Macedonian, Bulgarian, and Serbo-Croatian and the negative future marker based on ‘have’ found in Bulgarian as the form *njama* and in Macedonian as *nema*. In addition, though, there are more productive ways in which negative fusion is evident in South Slavic. Alexander (1995) has shown, for example, that the prosodic behavior of the negative morpheme *ne* in verbal groups and clitic sequences exhibits some degree of fusion in that it forms a single prosodic domain with other elements but is nonetheless quite readily analyzable as a separate element; the Serbo-Croatian negative future based on ‘want’, for example, *neću* ‘I won’t’, is a case in point, since *ću* in general shows some synchronic clitic-like properties (though not necessarily in this combination), making the synchronic analysis of the form quite transparent. Some combinations are less parsable, such as the Serbo-Croatian negative of ‘be’ (e.g., *nísam* ‘I am not,’ etc.), which has a full paradigm and a clear connection to nonnegated clitic forms of ‘be’ but shows a contraction of the negative with ‘be’ that gives a synchronically unpredictable result.²⁹

In Greek, negative fusion is found with the indicative negator *ðen*, which, following Zwicky and Pullum’s criteria, is best analyzed as a verbal affix because, as discussed in Joseph (1990), it is fixed in its position on the left margin of verbal complex, it is restricted to being only a verbal negator, and it shows some semantic idiosyncrasies, for instance, in the expression *ðen mu les*, which means ‘by the way’ but is literally ‘you don’t say’ and thus is negative in form without any negative semantics.

Moreover, a further argument can be developed for the affixhood of *ðen*: it cannot be doubled in and of itself even when the semantics of doubled negation are appropriate. Thus, the Greek equivalent of ‘I don’t not smoke for health reasons but because I hate the taste’ cannot have **ðe(n) ðe(n)* but must resort to a circumlocutory paraphrase. Also, the doubling of *ðen* is not possible even though Greek allows two “slots” for negation elements when each has a different form; thus, *ðen* can co-occur with the nonindicative negation element *mi* in the combination *na mi ðen*, which can occur for some speakers in a negative complement to *fováme* ‘I fear’, as in (13):³⁰

(13) *Fováme na mi ðen érθi.*

fear-1SG SUBJ mi not come-3SG

‘I am afraid that he may not come.’ (Veloudis 1982:11)

This situation is parallel to the argument Zwicky (1987) gave for the English possessive ‘s as a (phrasal) affix, based on what he terms a “shape condition” that blocks a phonological form, something that in his conception of grammar, with a “phonology-free syntax” in which syntactic rules cannot make reference to phonological elements, ought to be a matter of morphology and not syntax.

Nonetheless, despite being generally affixal and thus a fused element, *den* does seem to have some independence in the sense that it can be picked out in a “mention” function; that is, one can say *ise ólo ‘den’ símera* ‘You are quite negative today’ (lit.: ‘You are all ‘den’ today’), a possibility that seems somewhat anomalous for affixes, though admittedly perhaps not impossible. The English equivalent *You are all ‘n’t’ today* is distinctly odd, suggesting that fused (i.e., morphological) forms in general are not available to be mentioned.³¹

Thus in Balkan Slavic and Greek, at least, negative fusion can be found to varying degrees. Such a situation typically makes one wonder if there is something “Balkanological” going on here, that is, something of interest for comparative Balkan syntax in the sense defined above in section 3. Here, the answer is probably not, for the usual reasons: the observed negative fusion could be an inherited tendency, and moreover, it is typologically quite a “natural” phenomenon.

For one thing, a consideration of a broader range of Slavic data shows that fusion between the negative marker and a verb, especially with the verbs ‘have’ and ‘be,’ is widespread in non-Balkan Slavic, including both East and West Slavic. Thus one finds *njama* ‘there is no’, from the verb ‘have’, in Belorussian; *ne* treated as a prefix on the verb in both Czech and Slovak; special negated forms in Sorbian of ‘want’, ‘have’, ‘can’, and ‘be’; and so forth.³² Moreover, this situation is not surprising, since the oldest available Slavic, Old Church Slavonic, shows fused forms of ‘be’, for example, *něsmb* ‘I am not’ (= **ne* + *esmi*).³³

Looking more widely yet, one can note cases of negative fusion throughout Indo-European, such as Latin *nolo* ‘I do not want’ (= **ne* + *wolo* ‘want’), or Old Irish *ní* ‘is not’ (from **nēst* < **ne* + *est*). Sometimes the details of the fusion, even the apparently very common sort with ‘be’, are such that it must have happened independently. Thus, Lithuanian *nerà* ‘is not’, with a synchronically irregular contraction of *ne* ‘not’ plus *yrà* ‘is’, occurred in Baltic after the innovative replacement of inherited **H*₁ *esti* (cf. Old Lithuanian *ēsti* ‘is’) by *yrà* as the third person singular present form of ‘be’. Finally, the fusion was not complete in all the languages: in Gothic, the negative marker *ni* is dependent, occurring as an enclitic between a lexical preverb and the verb in forms such as *mīþ-nī-qam* ‘did not come with’.

Therefore, negative fusion can occur independently and so could have arisen on its own in each of the Balkan languages that show it. Furthermore, there is direct evidence that it has occurred independently in the Balkans, for in early twentieth century Tsakonian, often called a dialect of Greek but divergent enough to perhaps warrant (at that time, at least) its being called a different language, a “negative” auxiliary verb ‘be’ developed. This negative auxiliary is a crucial piece of verbal system, since ‘be’ is used with a participle to form an ordinary present tense. The relevant forms are given in (14), where some irregularities can be noted that argue against a ready synchronic analysis of at least some negated forms into the synchronic negative marker *o* with a positive form of ‘be’.³⁴

(14)

Positive				Negative (= Neg + Positive)			
1SG	<i>éni</i>	1PL	<i>éme</i>	1SG	<i>óni</i>	1PL	<i>óme</i>
2SG	<i>ési</i>	2PL	<i>ét^he</i>	2SG	<i>ósi</i>	2PL	<i>ót^he</i>
3SG	<i>éni</i>	3PL	<i>ín'i</i>	3SG	<i>ón'i</i>	3PL	<i>ún'i</i>

The synchronic negator *o* derives from earlier *u* (Ancient Greek < οὐ >) and most likely was extracted out of a contraction of /u/ plus vowel-initial forms of verbs (e.g., auxiliaries in the present and imperfect tenses, the prefixed “augment” past tense marker in the simple past). Thus the contraction in the negative forms is regular diachronically, deriving from */u + e/ and 3PL */u + i/, and for all but the third person plural form is synchronically regular also as /o + e/; but for the third person plural form, the contraction is not regular synchronically, for /o + i/ would not be expected to yield [u]. Similarly, reduced forms of ‘be’ show synchronic irregularities: the third person singular positive form is *én* or *n*, but the corresponding negative is *ó*, with no [n].

It must be concluded, therefore, that these facts concerning negative fusion in the Balkans are interesting from the perspective of the “linguistics of the Balkans” or the “comparative syntax of the Balkans” but not from the perspective of “Balkan linguistics” or “comparative Balkan syntax.” Each language reveals an interesting phenomenon, but its occurrence in each language need not be attributed to language contact in any form and thus is not immediately relevant to the concerns of the investigation of the Sprachbund as a contact-induced phenomenon.

5. Conclusion

The extended examples in the previous section show the virtues of keeping both types of pursuits in mind, and, clearly, researchers must be cognizant of both. Both enrich our understanding of language in general and of the languages in the Balkans specifically. The more we know about language in general, the better able we are to judge the particulars of the languages of the Balkans, both in terms of how these languages fit into the general domain of natural human languages and in terms of how they fit into the more specific domain of “Balkan languages.” Moreover, the two approaches work well together: pursuing the comparative syntax of Balkan languages identifies possible candidates for comparative Balkan syntax, and when working in the Balkans one must always keep the Sprachbund in mind, even if we end up learning more about individual languages when we feel free to reject language contact and focus just on the language-internal syntax of one language in comparison with the language-internal syntax of another.

Notes

This paper was developed for the "After-GLOW" Workshop on Balkan Syntax, held in Athens in April 1996. I would like to thank the workshop organizers, Angela Ralli and Irene Philippaki-Warbuton, for the invitation that gave me the opportunity to try these thoughts out on a knowledgeable audience, whose insightful comments were useful to me as I revised the paper for this volume. I also owe a debt of gratitude to Victor Friedman, of the University of Chicago, and Nick Nicholas, of the University of Melbourne, both of whom also provided numerous important suggestions for improving the paper. Naturally, all are absolved of any complicity in remaining errors.

1. My source for this characterization of Universal Grammar is David Perlmutter, based on class lectures he presented at MIT over twenty years ago that I was privileged to have been able to sit in on. I do not know if this view is original with him or if he was passing on what he had learned from someone else, but I am pleased to be able to acknowledge the role he played in sharpening my understanding of linguistic theory through such statements.

2. See, for instance, the papers in Jaeggli and Safir (1989a).

3. For example, it is not at all obvious why there should be any link between the structure of verbal paradigms and the possibility of null subjects. Moreover, Jaeggli and Safir (1989b) themselves, in the face of a counterexample from Dutch (discussed in their note 19), retreat somewhat and suggest that perhaps "up to one stem identical form [in a paradigm with stem + affix forms otherwise/BDJ], excluding imperatives, is permitted" (p. 40).

4. As discussed by Thrasher (1974), sentences like:

(i) Seems like no one cares! (= It seems like no one cares!)

(ii) Can't get there from here! (= You can't get there from here!)

suggest that English has some *pro*-drop-like structures, but as he points out, more than just subjects can be deleted:

(iii) Gotta run! (= I 've gotta run)

(iv) Cold? (= Are you cold?)

(v) Guy over there is crazy! (= The guy over there is crazy!).

Moreover, such strings are not possible in subordinate clauses (e.g., **John warned Mary that Ø can't get there from here*) suggesting that *pro*-drop is not at work in these English utterances. Still, when faced with just sentences like (i) and (ii), an English-speaking child conceivably could develop an analysis akin to a null-subject analysis, making it unclear what it means to speak of a "pro-drop" or "null-subject" language.

5. See Joseph (1994) regarding the retention of weak subject pronouns in one Greek construction, a locative interrogative construction with *pún* 'where is/are?' (e.g., *Pún dos* 'Where is he?'), even though Greek generally is a well-behaved typical *pro*-drop language; similarly, Morin (1985, 1988) analyzes *voici* and *voilà* 'here is/are' in French as subjectless predicates in an otherwise non-*pro*-drop language.

6. See Nevis et al. (1994) for access to the literature on Romance clitic studies and Germanic V2 up through 1992. Roberts (1997) provides some updating on more recent work, with discussion.

7. See, e.g., Schaller (1975, 1977) and Banfi (1985) for references.

8. There is no really suitable, widely agreed-upon English term, though "linguistic area" is sometimes used (cf. Campbell, Kaufman, and Smith-Stark 1986, for example). "Convergence area" probably conveys the meaning best, but I adopt

the German term nonetheless, following the vast majority of scholars writing in English in this practice.

9. It is often the case that languages in a Sprachbund are not related to one another, or at least not closely related; in the case of the Balkans, although most of the relevant languages are Indo-European, they represent different subgroups (branches) of the Indo-European family.

10. As this last trait shows, part of what makes languages in a Sprachbund of considerable interest is not just that they converge on one another but that this convergence represents a divergence from their previous stages and from other genetically and geographically related languages. Furthermore, for Sprachbund members that are genetically related, the convergent features are not a matter of a shared inheritance from their common ancestor.

11. Language abbreviations here are "Alb" for Albanian, "Blg" for Bulgarian, "Grk" for Greek, and "Rom" for Romanian; elsewhere, "Mac" is used for Macedonian and "Trk" for Turkish.

12. As Eric Hamp has remarked on occasion, Proto-Indo-European did not even have a definite article, so the postposed article cannot possibly be an inheritance from the common ancestor of these languages. Similar observations hold for the other features cited here.

13. For example, by Sandfeld (1930.106), who discussed this convergence in the context of seeking an explanation for the apparently innovative occurrence of a 'have'-plus-participle pluperfect in Aromanian and Megleno-Romanian, the most centrally Balkan varieties of Romanian (as opposed to its absence in Daco-Romanian). The existence of parallel forms in Greek, Albanian, and Macedonian led Sandfeld to suspect language contact as the source of the Aromanian and Megleno-Romanian formation, and he eventually concluded that "il semble préférable de penser à une influence grecque" (p. 106).

14. That is, passive when formed from a transitive verb and active when formed from an intransitive verb.

15. Admittedly, in the context of a comparison with English, the occurrence of a past perfect with 'have' and a participle may not seem remarkable, but it is noteworthy that Romance languages typically use 'have' with a participle for a regular past tense (e.g., the French *passé composé*, the (Daco-)Romanian *perfectul compus*) and not for a perfect tense, and that the 'have' perfect is not found elsewhere within Slavic.

16. The Greek pluperfect cited here consists of the past of 'have' with a (generally passive) participle; there is also a pluperfect, innovated in the Medieval Greek period and formed with 'have' followed by an invariant verb form, which historically continues the older infinitive, but which synchronically may be nothing more than a variant participial form, for example, *íxa đési* 'I had tied', as discussed in Joseph (1983). There are present perfect forms corresponding to these pluperfects in Albanian, Macedonian, and Greek (and even a future perfect in Greek), but in Greek at least it seems that pluperfect was the starting point for this type of perfect (see Joseph 1999 for some discussion).

17. In Turkish, the usual meaning of the juxtaposition of the aorist with a negative aorist form is 'as soon as', for example, *gelir gelmez* 'as soon as (s)he comes'. While this anomaly regarding *ister istemez* may point to that pattern with that particular root being a borrowing into Turkish, it must be noted that the verb *ol-* 'be' also shows an anomalous meaning for the aorist-plus-negative-aorist construction (*olur olmaz* means 'any old; just any'), suggesting that irregularities here may well be

a function of the high frequency of these verbs. Clearly, the Balkan side of this construction needs further investigation (see Joseph (in press)) for some suggestive discussion).

18. Including much of my own earlier work, I regret to relate.

19. The Arvanitika facts and the analysis given here are taken from Tsitsipis (1981:347); see also Joseph (1992) for further discussion.

20. The invariant ending *-ondas* is the old accusative singular of the present active participle apparently with the masculine nominative singular ending *-s* added on (though Horrocks 1997 also suggests that the *-s* may be an adverbial marker, as in dialectal Greek *tótes* 'then' versus Standard Greek *tóte*, which would be motivated by the circumstantial use of the participle). The accusative origin of the ending indicates that nonsubject control was indeed once possible (as a participle the form agreed in case with the nominal it was associated with), and it can be speculated that the innovative further characterization of the ending with a nominative desinence coincided with the form being restricted to subject-only control of its understood subject.

21. Admittedly, the development of the Tocharian form is not completely straightforward, according to some accounts of Tocharian historical phonology (especially that of van Windekens 1976; see Joseph 1991 for some discussion). Whatever the prehistory of Tocharian *mā*, the reconstruction of PIE **mē* is secure.

22. The Albanian forms and sentences in (8) are taken from Newmark et al. (1982) and Duro and Hysa (1981); the sources for the Greek are given where appropriate, with all other Greek data coming from consultation with native speakers.

23. The terms "demotic" and "katharevousa" refer respectively to the low and high style varieties of Greek that functioned in a diglossic relationship for much of the nineteenth and twentieth centuries in the Greek-speaking world. The details of this relationship, which permeates Greek linguistics even today, when *katharevousa* no longer has the official status it held into the 1970's, are not of concern here; see Mackridge (1990) for some recent discussion of the history and resolution of Greek diglossia.

24. Basically the voiceless stops, which typically become voiced after the nasal and induce place assimilation on the nasal: for some speakers, the nasal can then be deleted under complex partly sociolinguistically governed conditions; see Arvaniti and Joseph (1999) for some discussion. Before fricatives, the nasal can appear, mainly in careful speech.

25. Janda and Joseph (1996, 1997) discuss this issue, proposing the use of the construct they refer to as the "(morphological) rule constellation" to capture the simultaneous similarities and differences in the various realizations of *mī(n)*; see, for example, Janda and Joseph (1986, 1989, 1992) and Joseph and Janda (1988) for more discussion of constellations.

26. Thus, *mā* can occur independently (though often repeated, as *mā mā*) but only in the meaning 'Not so!', a somewhat emphatic negation, not a prohibitive. There is also an elliptical use of *mā* that is prohibitive in value, for example, *mā sabdam* 'Not a word!' (where the accusative form of *sabda-* suggests a missing governing verb).

27. Admittedly, this feature would be found just in two languages, though possibly with more information Romany could be added to the list; still, there are Sprachbund features that are not found in all the languages—e.g., the postposed definite article is absent from Greek, so that it is not essential that a "Sprachbund feature" be found all over the region.

28. I find Zwicky and Pullum's argumentation quite compelling and so opt for the affixal analysis of *-n't* here; facts such as the totally idiosyncratic morphophonemics for the shape of *will* in combination with *-n't* are part of their evidence, for such idiosyncrasies are more typical of affixal combinations than clitic ones. The historical origin of *won't* as a reduction of *will not* is irrelevant to the synchronic analysis.

29. In that way, *nfsam* is somewhat like *won't* in English, discussed in the previous note.

30. As discussed in section 4.1, the *mi* that occurs in these complements to verbs of fearing is pleonastic.

31. Bound forms can, however, occasionally be "liberated" and take on independent status, as with the use of *-ism* in English as a free noun meaning "a distinctive doctrine, system, or theory" (*American Heritage Dictionary*, s.v.), extracted from nouns such as *socialism*, *communism*, etc. Thus mention might be possible in principle.

32. See the sketches in Comrie and Corbett (1993) for relevant details.

33. The pan-Slavic nature of negative fusion, especially with 'be' and 'have', need not mean that any given fused form in a Slavic language must be an old feature, and it is not clear just how much of this phenomenon can be or even should be reconstructed for Common Slavic. Still, its occurrence in earliest attested Slavic and its widespread nature would suggest that at least some of the fused forms are old, though they may well have provided a pattern for the innovative spread of fusion to other verbs. I am grateful to Daniel Collins and Charles Gribble for helpful discussion on this issue.

34. All Tsakonian data, and most of the interpretations, are taken from Pernot (1934).

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Head-to-Head Merge in Balkan Subjunctives and Locality

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1. Introduction

The data to be analyzed below belong to three types of constructions, which are held to be syntactically distinct in GB analyses: control, raising to subject, and obviation. Extending Dobrovie-Sorin's (1994, chap. 4) analysis of Romanian to the other Balkan languages, I will argue that the data support a unified analysis along the lines of Koster (1978, 1984, 1987), who proposes that the same syntactic configuration, namely anaphoric binding, underlies both control and subject raising. The phenomenon referred to as obviation can also be restated in terms of anaphoric binding.

Insofar as it unifies control and subject raising, Koster's GB analysis is conceptually close to minimalist analyses such as those of Hornstein (to appear) and Manzini and Roussou (1998). The difference between the two models obviously triggers different implementations. Thus, within GB, it is anaphoric binding that provides the common basis that allows us to unify bound anaphora (in particular control) and NP movement (in particular subject raising). Within minimalism, on the other hand, anaphoric binding has no theoretical status, and the relevant empirical generalizations are restated in terms of the Attract/Move operation. The two implementations will be thoroughly compared.

Balkan subjunctives¹ allow their subject DP to enter into a local relation with an argument of the main clause. Compare the subjunctive clauses of Romance languages other than Romanian, which block such a relation. The distinguishing behavior of Balkan subjunctives will be shown to be due to their particular constituent structure, which can be more adequately represented within bare phrase structure (Chomsky 1994) than within X'-theory (Chomsky 1986).

As a result of our investigation, we will be able to circumscribe the properties that Balkan subjunctives have in common with the infinitives of Germanic and Romance languages. It seems natural to believe that it is precisely these properties that allowed the Balkan subjunctive to replace the infinitive.²

2. Control

In Balkan languages, obligatory control³ is allowed into subjunctives, despite the fact that their null subjects are more easily analyzed as *pro* rather than PRO (see in particular the Agr features on the verb):

- (1) a. *Jon a încercat să -l* Rom
 John have-3SG try-PART să⁺ him-CL.ACC
pedepsească pe Mihai.
 punish-3SG.SUBJ pe Mihai
 'John tried to punish Mihai.'
- b. *Am început să citesc Cei trei mușchetari.*
 [I] have-1SG start-PART să read-1SG.SUBJ the three musketeers
 'I started to read *The Three Musketeers*.'
- c. *I -am cerut*
 him/her-CL.DAT have-1SG ask-PART
să recite o poezie.
 să recite-3SG.SUBJ a poem
 'I asked him/her to recite a poem.'
- (2) *Ivan se opita da nakaže Mihail.* Blg
 Ivan se try-PAST da punish Mihail
 'John tried to punish Mihail.'
- (3) *Prospăto na fiyo.* Grk
 try-1SG na leave-1SG
 'I am trying to leave.'
- (4) a. *Fillova të lexoj Tre Muskëtjerët.* Alb
 started-1SG të read-1SG three Musketeers.the
 'I started to read *The Three Musketeers*.'
- b. *Beni u përpoq të ndëshkonte një njeri të pafajshëm.*
 Beni tried-3SG të punish-3SG a person të innocent
 'Ben tried to punish an innocent person.'
- c. *I kërkova të recitojë një poezi.*
 him-CL.ACC asked (I) të recite-3SG a poem
 'I asked him to recite a poem.'

I will argue that this kind of data favors an analysis of control along the lines of Manzini (1983), Koster (1978, 1984) and Borer (1989), who attempt to reduce control to anaphoric binding. Given this analysis, Balkan obligatory control configurations can be shown to obey the same syntactic constraints as their Romance and English counterparts.

2.1. Control and PRO

Within GB theory, control effects are currently analyzed as being triggered by a particular type of empty category, the “pronominal anaphor”, notated PRO (cf. Chomsky 1981). Because of its intrinsic features, this element (instantiated by infinitival subjects) must necessarily enter into a control relation:⁵ it needs a close antecedent, which fixes its reference, and the antecedent is an element of the main clause, either the subject or the object, depending on the lexical properties of the main verb. The relationship that an infinitival subject is bound to entertain with an element in the main clause is called “control”, hence the term “controlled element” for PRO itself.

This analysis does not easily extend to Balkan languages. It is quite clear that by virtue of its being identified by the Agr features on the verb, the null subject of Balkan subjunctives is rather of type *pro*, that is, comparable to the subjects of tensed clauses (Philippaki-Warbuton 1987).

Another argument against the idea that the null subject of subjunctive clauses is PRO relates to the fact that Balkan subjunctive clauses are compatible with both null and lexical subjects. When it is null, the subject may be coreferential with an element in the main clause (see (5a)) or it may refer freely (5b):

- (5) a. *Maria vrea să plece mâine.*
 Mary wants să leave-3SG.SUBJ tomorrow
 ‘Mary wants to leave tomorrow.’
- b. *Eu vreau să plece mâine.*
 I want să leave-3SG/PL.SUBJ tomorrow
 ‘I want that [he/she/they] leave tomorrow.’

These properties are expected if the null subject is *pro*, but not if it is PRO: in the “PRO theorem”, PRO can only occupy a position that is not accessible to lexical subjects. But despite the clarity of the data (which is unanimously acknowledged), most GB theorists propose analyses that assimilate the controlled subject of Balkan subjunctives to PRO (Dobrovie-Sorin 1987 for Romanian; Iatridou 1993, Terzi 1991, and Tsoulas 1993 for Greek; Krapova (this volume) for Bulgarian).

2.2. Control as anaphoric binding

I will follow my earlier argument (Dobrovie-Sorin 1994.chap. 4) that no empirical evidence exists in favor of the hypothesis that the null subject of Balkan subjunctives has the status of PRO. These languages may instead be used as evidence in favor of those proposals that try to eliminate PRO from the grammar, by reducing control to anaphoric binding (Koster 1978, 1984, 1987; Manzini 1983; Borer 1989).⁶ Despite a number of diverging ideas, these proposals all attempt to reduce control theory to binding theory by assuming that PRO has the status of an anaphor,⁷ and as such is subject to principle A of binding theory:

- (6) a. An anaphor is bound in its governing category. (principle A)
 b. β is bound by α iff β is coindexed with α and α c-commands β
 c. The governing category of β is the minimal category containing β , the governor of β and a subject.

2.3. Underspecified pronouns and contextual anaphors

According to Borer (1989), the status of anaphor is assigned not to an empty category, but rather to a certain kind of Agr (i.e., to the verbal inflections that identify empty subjects). This is problematic if we assume the GB theory of binding, according to which only elements occupying A positions are subject to binding principles. Thus, even if anaphoric features were marked on agreement morphemes or on clitics (see *se/si* in Romance), the constraint imposed by principle A would hold for the empty category identified by Agr (or by clitic traces), because it is the empty category itself rather than its antecedent that occupies an A position. Restated in this way, Borer's idea is vital for the Balkan data, in which the controlled subject is identified by Agr features.

The analysis to be developed below, however, differs from Borer's proposal and comes close to that of Bouchard (1984), insofar as it assumes that a controlled element is not intrinsically marked as an anaphor but rather has the status of a contextual anaphor. The notion of contextual anaphor presupposes the existence of pronominal elements that are underspecified with respect to their anaphoric or pronominal status. A case in point is provided by French reflexives (the same is true of the other Romance languages):

- (7) a. *Je_i me_i lave e_i.*
 I me wash
 'I wash myself.'
 b. *Tu_j me_i laves e_i.*
 You me wash
 'You wash me.'
 c. *Jean_i se_i lave e_i.*
 John se wash
 'John washes himself'
 d. **Tu_j se_i laves e_i.*
 you se wash

In (7a), but not in (7b), *me* (this is true of all first and second person object clitics) is bound in its governing category; this means that *me* is an anaphor in (7a) and a pronoun in (7b). To assume distinct intrinsic features ("anaphoric" vs "pronominal") for *me* in (7a) and (7b) seems entirely stipulative; it seems more satisfactory to say that *me* is underspecified, its anaphoric or pronominal status being contextually determined: in (7a) principle A is obeyed, and this assigns an

anaphoric status to *me*, whereas in (7b) principle A is violated, and this assigns a pronominal status to *me*. Compare the case of *se*, which is inherently marked as an anaphor and as such must obey principle A ((7d) is ruled out because it violates principle A).

The distinction between contextual and intrinsic anaphors is particularly clear if we consider their relation to principle A. This principle has the status of a well-formedness condition on intrinsic anaphors; contextual anaphors, on the other hand, are not constrained by this principle but rather are defined by it. In (8), the term “pronoun” is used in the grammatical sense, that is, “an element that stands for a nominal expression”; it is neutral with respect to the GB distinction between pronouns and anaphors:

(8) A contextual anaphor is a pronoun that obeys principle A.

Let us now come back to the null subjects of subjunctives in Balkan languages. Clearly, they differ from *se* and behave much like *me/te*:

- (9) a. *Vreau pro_i să plece pro_j mâine.* Rom
 [I] want să leave-3SG/PL.SUBJ tomorrow
 ‘I want him/her/them to leave tomorrow.’
- b. *Eu aș vrea ca Ion_i să plece mâine, dar*
 I would like that John să leave-3SG.SUBJ tomorrow, but
Maria_j vrea neapărat să plece pro_{i/j} poimâine.
 Mary wants very much să leave-3SG.SUBJ after tomorrow
 ‘I would like John to leave tomorrow, but Mary wants
 very much him/her to leave the day after tomorrow.’
- c. *Eu aș vrea ca Ion_i să plece mâine, dar*
 I would like that John să leave-3SG.SUBJ tomorrow, but
Maria_j m -a convins că
 Mary me-CL.ACC have-3SG convince-PART that
trebuie să plece pro_{i/j} poimâine.
 must să leave-3SG.SUBJ after tomorrow
 ‘I would like John to leave tomorrow, but Mary convinced me that
 he/she must leave the day after tomorrow.’
- (10) a. *Dua pro_i të shkojë pro_j nesër.* Alb
 (I) want të leave-3SG tomorrow.
 ‘I want him/her to leave tomorrow.’
- b. *Unë do doja që Beni të shkojë nesër.*
 I would like that Beni të leave-3SG tomorrow
 ‘I would like Beni to leave tomorrow.’
- (11) *Θέλω να φύγουν.* Grk
 [I] want na leave-3PL
 ‘I want them to leave.’

In (9)–(11) the subject of the subjunctive does not function as an anaphor, because it is not subject to principle A of binding theory; it behaves instead as a null pronoun (*pro*). Compare the examples in (1)–(3), in which the subject of the subjunctive participates in an anaphoric binding relation imposed by obligatory control verbs.

The distinction between intrinsic and contextual anaphors allows us to keep the subject of Balkan subjunctives distinct from Germanic and Romance (other than Romanian) infinitival subjects⁸ while accounting for their common properties. Because they are identified by Agr features and as such may be assigned free referential indices, Balkan controlled subjects cannot be assumed to be intrinsic anaphors but rather may be null pronouns (*pro*) that may function as “contextual” anaphors: the inherent features of Agr are neutral with respect to the [+an] and [–an] specification, the choice depending on the context. Compare the null subject of Germanic and Romance infinitives, which lack Agr features and as such can assume referential indices only by coindexation with a (local) antecedent; in other words, the null subjects of infinitives are of necessity anaphors.⁹

2.4. Control and lack of Case

Hornstein (1999) and Manzini and Roussou (1998) account for the distribution of infinitival subjects by assuming that in certain languages, –finite Infl cannot assign Case. I believe that this characterization is indeed correct (contra the hypothesis of null Case proposed in Chomsky and Lasnik 1993). However, the lack of Case should not be built into the general characterization of control (and subject-raising) phenomena. It would indeed be entirely stipulative to assume that the Infl of Balkan subjunctives is unable to assign Case in control environments, although it may do so in other contexts (see Romanian *Aș vrea să vină Ion cu mine* ‘I would like să come.SUBJ John with me’). We may instead assume that Case need not be assigned even if it can be (see unergative verbs used with cognate objects or with small clauses, e.g., *John lives a miserable life*; *They laughed him out of the stage*). Note on the other hand that there is no problem for Move F to apply between two elements that both carry Case features (cf. reflexive pronouns and their antecedents in English).

2.5. Non-obligatory control

Balkan subjunctives freely license null pronominal subjects, and since such subjects allow arbitrary interpretation, cases of arbitrary control can be analyzed as relying on *pro*. Note that the arbitrary interpretation of the null subjects of indicatives requires second person agreement marking, and so does an arbitrarily controlled subject in subjunctives:

- (12) a. *Nu trăiești dacă nu muncești.* Rom
 not live-2SG if not work-2SG
 ‘One does not live if one does not work.’

- b. *E greu să fii fericit.*
 is difficult să be-2SG.SUBJ happy
 'It is difficult to be happy.'

Optional control may also be assumed to rely on *pro*, since null subjects can be freely assigned referential indices:

- (13) *Ion_i speră să fie_{Agri/j} fericit.*
 John hopes să be-3SG.SUBJ happy
 'John hopes to be happy.'

Optionally controlled and arbitrary null subjects of Romance and Germanic infinitives cannot be assimilated to *pro* (*contra* Hornstein 1999), because infinitival subjects do not show the characteristic properties of *pro*, nor is *pro* independently attested in these languages. One may instead pursue the line of inquiry proposed by Manzini and Roussou (1998), who argue in favor of an interpretative mechanism according to which arbitrary and optional control obtain when the infinitive Infl is related to an operator in Comp, either Gen(eric) or some specific operator, depending on whether the tense of the main clause is generic or specific.

2.6. Conclusions

I have so far argued that the Balkan control data are hard to capture by the standard analysis based on PRO (see the anaphoric pronoun in the standard GB model or the empty category assigned null Case in Chomsky and Lasnik 1993). I have instead adopted an alternative line of inquiry, according to which control is just a case of anaphoric binding. This alternative analysis has a better chance of being adequate for Balkan languages on the additional assumption that the null subjects of Balkan subjunctives are pronouns that are underspecified with respect to +an and +pron features and as such may function as either pronouns or anaphors, depending on the context in which they appear: in examples such as (9)–(11), the null subject is free in the domain of the main clause and as such it functions as a pronoun; in obligatory-control configurations, on the other hand, it functions as an anaphor. We therefore do not need to assume that the subject of Balkan subjunctives is ambiguous as to PRO and *pro* (*contra* Terzi 1997, Krapova (this volume), among many others).

The properties of Balkan subjunctives thus lead us to assume a theory of control centered around a particular type of linguistic *relation*, described here as anaphoric binding, rather than a particular type of linguistic *element*. For convenience, we shall speak of the controlled subject, but the reader should keep in mind that this label designates not intrinsic features but rather an element that participates to an anaphoric relation, which is imposed by the selectional properties of the main verb.

3. Control and raising to Subject

Note now that by reducing obligatory control to anaphoric binding we necessarily end up with the conclusion that obligatory control relies on the same syntactic configuration as raising to subject, as convincingly argued by Koster (1978, 1984, 1987).¹⁰ This is so because raising to subject is an instance of NP movement, and NP traces have the status of anaphors; hence, they fall under principle A of binding theory, on a par with controlled subjects, if indeed the latter are assimilated to anaphors.

It thus comes as a surprise that Borer (1989) tries to avoid this consequence of her own hypothesis (recall that Borer proposes an analysis of control in terms of anaphoric binding), by stipulating, as in the standard GB analysis, that raising verbs subcategorize an IP complement, whereas control verbs subcategorize a CP projection characterized by Move (V \rightarrow) I to Comp:

- (14) a. *John_i seems* [_{IP} *e_i to misunderstand what I am saying.*]
 b. *John_i tries* [_{CP} [_{IP} *e_i to go.*]]

As far as I can see, the only reason for which one might want to maintain that control is distinct from raising is related to θ theory: the antecedent of a controlled subject has its own θ role, whereas a raised subject inherits the θ role of its trace. However, within GB theory, this distinction is independently captured by θ theory. The θ -chain structures underlying (14a) and (14b) are indeed different:

- (15) a. (NP, e)
 b. (NP) (e)

The empty categories in (15a) and (15b) both qualify as anaphors. The one in (15a) is also an NP trace; this label is simply a descriptive statement of the fact that the empty category and its NP antecedent belong to the same θ -chain structure. To put it otherwise, labels such as “NP-trace” and “controlled subject” capture information concerning the underlying θ configuration. But given the modular form of GB theory, it is not necessary to establish classes of linguistic elements on the basis of the type of θ structure to which they belong. Indeed, NP traces and reflexives are classed together as anaphors, that is, as elements that are constrained by principle A, and no subclasses are established to capture the fact that NP traces, but not reflexives, belong to the same θ chain as their antecedent. The same analysis naturally extends to raised and controlled subjects: they both qualify as anaphors but differ with respect to θ theory.

The standard GB theory of control in terms of PRO and the alternative theory that reduces control to anaphoric binding (or NP movement) differ in their empirical predictions. Since the standard theory postulates that control and raising rely on distinct syntactic configurations, we expect that some empirical difference might correspond to the postulated difference between CP and IP projections.¹¹ Compare the alternative analyses discussed above: since control is reduced to binding, no difference is expected between control and raising

configurations, since the latter rely on NP movement which is an anaphoric relation. Koster argues that this prediction is correct in Dutch.

The Balkan subjunctive constitutes further evidence in favor of bringing together control and raising:

- (16) a. *Copiii pot să ajungă* Rom
 children.the may să arrive-3PL.SUBJ
dintr-o clipă în alta.
 from one moment in another
 ‘The children may arrive from one moment to another.’
- b. *Toți băieții s-au nimerit*
 all boys.the REFL have-3PL happen-PART
să fie tî bolnavi.
 să be-3PL.SUBJ ill
 ‘All the boys happened to be ill.’
- c. *Copiii tăi par să fie tî foarte obosiți.*
 children.the your seem să be-3.SG.SUBJ very tired.
 ‘Your children seem to be very tired.’
- (17) *Decata mogat da pristignat vseki moment.* Blg
 same gloss as (16a)

These examples show that Balkan subjunctives are transparent for raising to subject.¹² The parallelism between obligatory control and raising comes as a surprise within the standard GB analysis, but it is expected within the alternative approach that attempts to reduce control to anaphoric binding.

4. From GB to minimalism: anaphoric binding, NP movement, and Move F

Let us now compare the GB account proposed here with those minimalist proposals that are conceptually close to it, in particular Hornstein (1999) and Manzini and Roussou (1998). These three proposals share the following assumptions: (i) elimination of PRO from the theory of grammar; (ii) reduction of control to anaphoric binding; and (iii) unification of control and subject raising. It is important to note that within GB, the hypothesis in (ii) is both an empirical generalization and a theoretical characterization. On its empirical side, (ii) means that control phenomena show the same constraints as those exhibited by the anaphoric relation between reflexive or reciprocal pronouns and their antecedents. And within the GB model, anaphors are subject to principle A of binding theory. Since within minimalism binding theory and government have no theoretical status, minimalist accounts assume only the empirical side of (ii) and treat anaphoric binding phenomena in terms of movement, which inevitably leads to (iii). I have argued above that also within GB, the proposition in (iii) is

a theory-internal consequence of (ii). This is so because the GB operation of NP movement qualifies as anaphoric binding (NP traces are anaphors and as such must obey principle A of binding theory). In sum, the unification stated in (iii) goes in opposite directions in GB and minimalism.

Hornstein (1999) attempts to reduce anaphoric binding to overt DP movement. To do so, he is led to assume that movement from one θ position to another θ position is allowed, and correlatively that one chain may contain more than one θ position. Although I agree with Hornstein that these revisions are minimalist in spirit insofar as they attempt to eliminate undesirable survivals of D structure into minimalism, I believe that the notion of θ position itself is another such relic. Thus, if we want to really eliminate D structure from the theory, we must also eliminate θ positions, DP movement and A chains. θ roles need not be assigned to certain syntactic positions (see the θ positions of GB theory); the minimalist framework should allow them to be directly transferred from the V that bears them to the DP expression itself.

It is precisely this line of inquiry that is pursued by Manzini and Roussou (1998), who argue that the antecedent DP of an obligatory control configuration (and of subject raising) is directly merged in its overt position, its θ role being acquired via Move F: θ roles are assumed to be features on V,¹³ which are attracted by the first hierarchically superior DP that satisfies a strong D feature. Locality constraints are captured by a revised Minimal Link Condition (MLC), the ‘‘Scopal MLC,’’ which essentially says that an attractor of θ features (i.e., a DP that satisfies a strong D feature of I or V) can attract a θ feature F only down to the next attractor for F. One DP may be assigned more than one θ role, as is precisely the case in control configurations: in *John started to work*, *John* attracts both the external θ role of *started* and that of *to work*.¹⁴ Move F is finally restated as ‘‘form dependency,’’ which is intended to eliminate actual operations such as copying and adjunction in favor of the mere structural relation between the head and tail of a connected subtree. It seems to me that both Move F and form dependency look more like GB (anaphoric) binding than like GB movement. In contrast to overt GB movement, Move F and form dependency do not derive a new syntactic object from a preexisting one. Both Move F and GB anaphoric binding establish a relation between coexisting elements of a given configuration. Thus, the true innovation that is due to the minimalist framework is the idea that the foot of a syntactic relation need not occupy a DP position.

5. Obviation

Consider next the examples in (18) and their Spanish counterparts in (19):

- (18) a. *Ion_i vrea s \bar{a} plece pro_ij_j devreme m \bar{a} ine.* Rom
 John wants s \bar{a} leave-3SG.SUBJ early tomorrow
 ‘John wants to leave early tomorrow.’

- (19) a. *Juan_i quiere que pro_j/*_i salga temprano.* Spa
 John wants that go out-3SG.SUBJ early
 'John wants him/her/*himself to go out.'
- b. *Juan quiere salir.*
 John wants go out
 'John wants to go out.'

The example in (19a) illustrates the obviation effect: the subject of a subjunctive clause cannot corefer with the main subject.¹⁵ Two main types of explanation have been proposed. We may assume that the governing category of subjunctives is the main clause (this characteristic would be due to the particular type of tense features that characterize subjunctives); hence (19a) would violate principle B, because the embedded subject, a pronominal element, would be incorrectly bound by the matrix subject (for this type of proposal see Jakobowicz 1985, Kempchinsky 1985, and Picallo 1984).

This proposal does not give the correct results for Balkan languages: since these languages do not show obviation effects, we would have to assume that the governing category of the subject of Balkan subjunctives is the embedded clause (see in particular Rivero 1989). But this assumption conflicts with the fact that Balkan subjunctives allow subject raising as well as obligatory control, which indicates that in these contexts at least, the governing category of the embedded subject is the main clause.¹⁶

We may alternatively assume that subjunctive clauses in Romance languages other than Romanian define a governing category for their subject. Under this hypothesis the binding conditions are not violated in (19a): the embedded subject is free in its governing category (the embedded clause). The ungrammaticality of (19a) must then be captured by additional principles (Bouchard 1984, Suñer 1986, Everaert 1986, Farkas 1992).

I will adopt the latter hypothesis and propose that (20) is the principle responsible for the obviation effect:

- (20) Use an anaphor instead of a pronoun whenever possible.

The point expressed in (20) can be viewed as a particular case of the Avoid Pronoun Principle.¹⁷ The ungrammaticality of (19a) now follows, since (19a) does not rely on an anaphoric relation: in Spanish, subjunctive subjects do not qualify as anaphors; only infinitival subjects do so (see (19b)).

Coming back to Balkan languages, the lack of obviation effects that characterizes their subjunctives reduces to the property discussed in previous sections, namely the fact that they are accessible to anaphoric binding, and as such they satisfy (20).

6. Locality and the constituent structure of Balkan subjunctives

We have so far demonstrated that control, raising, and obviation configurations can be given a unitary analysis by assuming that they all rely on a local relation

between the embedded subject and an argument of the main clause. We must now try to find out why Balkan subjunctives allow anaphoric binding and local movement within GB and minimalism, respectively.

Given the GB definition of anaphoric binding, what sets Balkan languages apart can now be stated as follows:

- (21) In Balkan languages the GC of the subject of subjunctives is the main clause.

Compare Romance languages (other than Romanian), in which the GC of the subject of infinitives is the main clause, whereas the GC of the subject of subjunctives is the embedded clause. Hence, Romance subjunctives disallow obligatory control and subject raising and show obviation effects.

The main hypothesis to be developed below is that the generalization in (21) is due to the fact that the so-called subjunctive particles of Balkan languages (*na*, *da*, *tě*, and *să* in Greek, Bulgarian, Albanian, and Romanian, respectively) incorporate to the verbal cluster.

6.1. Incorporating and non-incorporating C elements

The controversy concerning the status of subjunctive particles (see Philippaki-Warbuton and Veloudis 1984, Philippaki-Warbuton 1987, and Rivero 1994, who argue in favor of the Infl status of these particles, and Agouraki 1991, Dobrovie-Sorin 1994, and Tsoulas 1995, who argue in favor of their Comp status) need not be settled. More important than the exact status (Comp, Infl, or Mood) of these particles is the fact that they indeed show both Comp-like and Infl-like properties: like Comp elements, subjunctive particles are sentence initial, preceding negation as well as clitics, and may head embedded clauses in the absence of any other Comp element; but like Infl elements, subjunctive particles are strictly adjacent to the verb cluster (they cannot be separated from the verb by any nonminimal terms), must be repeated under conjunction, and can co-occur with *wh*-elements. This ambiguous status of subjunctive particles is best captured by assuming that they are generated in Comp (or in some other functional X position, higher than tense and distinct from Agr, as suggested by Rivero 1989), and merged with the verb cluster via a process of incorporation that merges adjacent functional categories (Dobrovie-Sorin 1994, chap. 3). Thus, the Infl-like behaviour of *să* (due to incorporation) and its Comp status (due to the position in which it is generated) can be reconciled.

Subjunctive particles clearly differ from other elements. See *ca* in Romanian subjunctives and *că* in Romanian indicatives and conditionals, which do not incorporate to the verb cluster and therefore unambiguously qualify as C elements. Let us first consider the distribution of *ca*:

- (22) a. *Vreau ca mâine să vină* Ion. Rom
 (I) want-1SG *ca* tomorrow *să* come-3SG.SUBJ John
 'I want John to come tomorrow.'

- b. *Doresc ca pe Ion să -l*
 (I) wish-1SG ca pe John să him-CL.ACC
examineze Popescu.
 examine-3SG.SUBJ Popescu
 'I wish Popescu would examine John.'

Ca is obligatory in these examples:¹⁹

- (23) a. **Vreau mâine să vină Ion.*
 (I) want-1SG tomorrow să come-3SG.SUBJ John
 b. **Doresc pe Ion să -l*
 (I) wish-1SG pe John să him-CL.ACC
examineze Popescu.
 examine-3SG.SUBJ Popescu

Ca cannot be used if *mâine* and *pe Ion* stay in postverbal positions:

- (24) a. *Vreau (*ca) să vină Ion mâine.*
 (I) want (*ca) să come-3SG.SUBJ John tomorrow
 'I want John to come tomorrow.'
 b. **Vreau (*ca) să -l examineze*
 (I) wish-1SG (*ca) să him-CL.ACC examine-3SG.SUBJ
Popescu pe Ion.
 Popescu pe John

These examples show that *ca* is needed whenever a constituent of the embedded clause appears in the position that precedes the verbal cluster. Quite clearly, *ca* is not required for Case purposes: adverbs do not need Case, and *pe* assigns accusative Case (see (22b)). Within the GB model one may assume that *ca* functions as a governor for dislocated constituents. The characteristic distribution of *ca* indicates that it does not incorporate to the verbal cluster.

The coexistence of *ca* and *să* in examples such as (22a) and (22b) seems to plead against the idea that *să* is a Comp element: *ca* would be in Comp and *să* in some Infl position higher than tense (to which the verb raises). This analysis then is led to assume two Infl positions,²⁰ whereas ours must postulate two C positions. Our account has the advantage of predicting that those languages that allow postverbal subjects make it possible for (the first) Comp to incorporate to the verb cluster. Because of this incorporation process, a dislocated constituent goes to Spec, C, and in certain languages, for example, Romanian, another functional X category (a second C) is needed in order to govern those dislocated constituents. In other Balkan languages, Modern Greek in particular, dislocated constituents in subjunctives appear clause-initially (*na* incorporates to the verb, on a par with *să*, but no counterpart of *ca* exists). If we alternatively assume that *să* is not a C but rather some I category, the generalization that such particles appear only in languages that allow postverbal subjects is more difficult to

explain: why should it be that such languages have an I position distinct from T, whereas languages with preverbal subjects have only T?

Consider next the distribution of indicative complementizers, illustrated here by the Romanian *că*, which is lexically distinct from both *să* and *ca*:

- (25) a. *Știu că vine Ion mâine.*
 (I) know-1SG that comes John tomorrow
 'I know that John comes tomorrow.'
- b. *Știu că mâine vine Ion.*
 (I) know-1SG that tomorrow comes John
 'I know that John comes tomorrow.'

These examples show that although *că* may appear adjacent to the verb (see (25a)), it does not incorporate to it: dislocated constituents obligatorily precede the verbal cluster but follow *că*. The lack of incorporation observed here can be attributed to the fact that indicatives (see also conditionals) are not semantically dependent on the main clause.

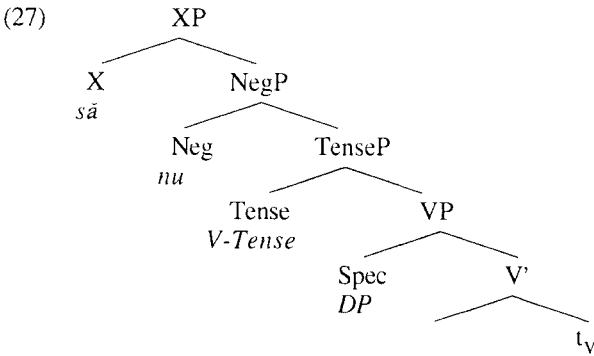
In sum, the incorporation of C with the verbal cluster is subject to a structural constraint, the postverbal position of the subject, and to a semantic constraint, tense dependency (see Dobrovie-Sorin 1994) or, perhaps more accurately, world-dependency (Farkas 1992).

6.2. The X'-theoretic representation of Balkan subjunctives

Coming back to Balkan subjunctive particles, the crucial property that needs to be captured is the fact that they form a complex X constituent with the other elements of the verbal cluster. This generalization was difficult to express within the GB model, which assumed the extension of X'-theory to functional categories proposed in Chomsky (1986): each of the functional categories forming the verbal cluster (V, tense, Neg, and the subjunctive particles themselves)²¹ had to project its own maximal projection, which included a Spec position. Dobrovie-Sorin's (1993) solution of this theory-internal difficulty was to assume a revised version of X'-theory (cf. also Fukui 1986), according to which:

- (26) Spec positions of functional categories need not be projected.

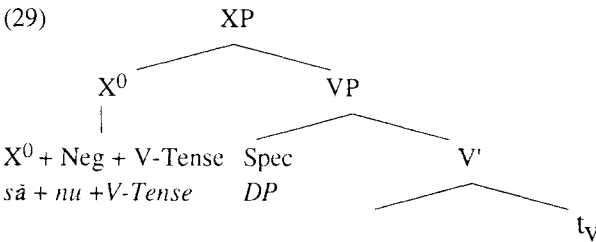
This assumption allows us to generate a configuration in which all the functional categories relating to the verb are adjacent to each other, although each of them projects its own maximal category. The label X is used here in order to indicate that we want to remain neutral as to whether subjunctive particles are C or I constituents:



In order to obtain a complex X^0 constituent we still need a restructuring rule:

(28) Adjacent functional X^0 categories restructure into one X^0 category.

This allows us to characterize Balkan verbal sequences (particle + Neg + CL + Adv + V-Infl) as forming a single complex X heading a single functional projection:



6.3. The locality constraint

We are now able to understand why the main clause counts as the governing category of the null subject of subjunctives, which is a discontinuous element formed by an empty category and an Agr element that identifies it, hence the notation (Agr, e), comparable to the (cl, e) notation used for clitic chains (Rizzi 1982, Chomsky 1982).

In order to determine the governing category of (Agr, e) we must first identify its governor. A plausible choice is the subjunctive particle itself (again, its exact label is irrelevant here). But under this hypothesis, the governing category of Agr would be the projection of the subjunctive particle, that is, the embedded subjunctive clause. This is not the result that we are looking for: in order for the null subject of the subjunctive to be bound by an element in the main clause, it is the main clause that should count as its governing category.

Let us then assume that the subjunctive particle cannot be the governor of the null subject of subjunctives because of the incorporation process postulated above. The constraint could be formulated as follows:

- (30) If a complex X^0 constituent contains a link of the chain to which a given element α belongs, then no element of the complex X^0 may count as a governor for α .

According to the constituent structure proposed above, the verbal cluster characteristic of subjunctives is a complex X element (Particle + Neg + CL + Adv + V-Tense-Agr). Since Agr is a link of the chain to which the null subject belongs, the principle in (30) prevents the subjunctive particle from counting as a governor for the null subject. The next possible governor is the main verb, and consequently the main clause constitutes the governing category of the null subject of subjunctives.

We thus obtain the result that we need, that is, the fact that the main clause counts as the governing category of the subject of the embedded subjunctive clause, which in turn accounts for the fact that the subjects of subjunctives can be bound by an element in the main clause. Compare the subjunctive of Romance languages such as French or Italian, in which the elements generated under C do not incorporate with tense (+Agr). Consequently, the Comp element counts as a governor for the embedded subject position, and, correlatively, the CP constituent counts as the governing category of the elements that occupy the subject position. This analysis explains why the subjects of subjunctives cannot assume the status of anaphors either in French or in *pro*-drop Romance languages such as Italian and Spanish. In these languages, subjunctive clauses do not allow control or subject raising, and they show obviation effects:

- (31) a. **Juan empezó que trabaja bien en la escuela.*
 John started that work-3SG.SUBJ well in the school.
 b. **Tu parece que estás feliz.*
 you seem that be-2SG.SUBJ happy.
 c. *Juan_i quiere que pro_j/_i salga temprano.*
 John wants that go out-3SG.SUBJ early
 'John wants him/her/*himself to go out.'

Coming back to Balkan subjunctives, our analysis predicts that control and subject raising are blocked by a functional head that does not incorporate with the verb cluster. This is indeed what happens in Romanian *ca* subjunctives. The observation is due to Grosu and Horvath (1987), but their analysis differs from mine:

- (32) a. **Toți elevii_i s-au nimerit*
 all students.the REFL have-3PL. happen-PART
 [*ca exercițiul asta_i să-l greșescă.*]
 ca exercise.the this să it-CL fail-3PL.SUBJ

- b. **Bombele_i pot* [_S *ca în orice moment t_i să explodeze.*]
 bombs.the may ca in any moment să explode-3PL.SUBJ
- c. **Copiii tăi_i par* [_S *ca pe profesor t_i*
 children.the your seem that pe teacher
să fie supărați.]
 să be-3PL.SUBJ angry

Grammatical examples can be built only by suppressing *ca*, and by leaving all embedded constituents *in situ*:

- (33) a. *Toți elevii s -au nimerit*
 all students.the REFL have-3PL happen-PART
să greșească exercițiul asta.
 să fail-3PL.SUBJ exercise.the this
 'It happened that all the students failed at this exercise.'
- b. *Bombele pot să explodeze în orice moment.*
 bombs.the may să explode-3PL.SUBJ in any moment
 'The bombs may explode at any moment.'
- c. *Copiii tăi par să fie supăraț pe profesor.*
 children.the your seem să be-3PL.SUBJ angry pe teacher
 'Your children seem to be angry with the teacher.'

Obligatory control appears to be subject to the same constraint, namely *ca* is precluded:²²

- (34) a. *Ion începe s -o ajute pe Maria.*
 John starts s(ă) her-CL.ACC help-SUBJ pe Mary
 'John starts helping Mary.'
- b. *Ion a încercat să -l pedepsească pe Mihai.*
 John have-3SG try-PART să him-CL.ACC
 punish-3SG.SUBJ pe Mihai
 'John tried to punish Mihai.'
- c. *Ion va îndrăzni să -l înfrunte pe profesor.*
 John will dare să him-CL.ACC
 contradict-3SG.SUBJ pe teacher
 'John will dare contradict the teacher.'
- (35) a. **Ion începe ca pe Maria s -o ajute.*
 John begins that pe Mary s(ă) her-CL.ACC help-3SG.SUBJ
- b. **Ion va încerca ca pe Mihai*
 John will-3SG try-INF that pe Mihai

- să -l pedepsească.*
să him-CL.ACC punish-3SG.SUBJ
 c. **Ion va îndrăzni ca pe profesor*
 John will dare that pe teacher
să -l înfrunte.^{2,3}
să him-CL.ACC contradict-3SG.SUBJ

To summarize, I have argued that, due to their particular constituent structure, Balkan subjunctives headed by subjunctive particles, as opposed to subjunctives headed by Comp elements that do not merge with the verb cluster, are transparent for the binding of their subject by an argument in the main clause.

Let us finally reconsider obviation effects. The examples in (18) were analyzed above as legitimate control configurations in Balkan, on a par with the obligatory control examples in (1). Hence, the lack of obviation, analyzed here as a case of the Avoid Pronoun strategy, is only apparent. This account predicts that *ca* will be disallowed in (36), just as it is illicit in (35); but this prediction seems to be contradicted:

- (36) *Aș vrea ca mâine*
 would-1SG like that tomorrow
să plec pro_i la munte.
să leave-1SG.SUBJ to mountain
 'I would like to leave for the mountains tomorrow.'

This type of Romanian example is comparable to well-known marginal exceptions concerning obviation effects studied by Ruwet (1984):

- (37) *?J_i 'aimerais bien que je_i sois enfin*
 I would like very much that I be-1SG.SUBJ finally
autorisé à partir en Israël.
 allowed to leave for Israel
 'I would like very much to be finally allowed to leave for Israel.'

(A number of French native speakers insisted that a question mark (or two) should precede Ruwet's examples.)

Given our account in terms of Avoid Pronoun, the problem in both (36) and (37) is that a pronoun is used instead of an anaphor. This possibility seems to be related to the fact that the event referred to in the embedded clause is viewed as distinct from the event referred to in the main clause: the "distance" between the two events is marked by the conditional mood, by the passive, by negation, and so on. We may suggest that anaphoric binding is not an obligatory choice for this type of looser relation; coreference between two pronouns belonging to two distinct governing categories is sufficient. Beyond this similarity, the Romanian cases of the type in (36) differ from the French examples by being completely grammatical and productive.

One may wonder whether the present account is not completely circular for Romanian: we postulate that the [Agr, e] chain is pronominal in *ca* subjunctives (see (36)) and anaphoric in *să* subjunctives, but there does not seem to be any empirical argument in favour of this analysis. This is indeed true if we take into account only (36), that is, if we consider the obviation problem in isolation. But the obviation problem cannot be understood independently of control. And obligatory control gives us an empirical argument in favor of the proposed analysis of obviation: the cases of obligatory control show that an anaphoric relation is precluded in *ca* subjunctives, so we cannot assume that (36) is a case of anaphoric binding.

6.4. The bare phrase structure of Balkan subjunctives

Although the Xⁱ-theoretic representation of subjunctives sketched in section 5.2 above is able to capture the empirical data, it is stipulative and too powerful. It relies on a restructuring rule, which undoes part of the derivation, and it stipulates an adjacency constraint, which has no clear status in the syntax.

The minimalist framework, and more precisely the bare phrase structure (BPS) of Chomsky (1994) allows a restatement of the core hypothesis in more principled terms. BPS does not require that a given Xⁱ category project a maximal category.²⁴ Hence, the lack of Spec positions for functional projections, which was stipulative and against the spirit of GB, is now permitted by the theory itself. It is furthermore possible to dispense with the restructuring rule if we assume that functional X categories need not first merge with a complement, but may instead merge with each other, an operation that will be referred to as Head-to-Head Merge. Although Head-to-Head Merge is not explored by current analyses, it is a possibility opened up by minimalist principles. This is not to say that it has no theory-internal problems, some of which will be briefly addressed below.

The first question is whether Head Merge qualifies as substitution or as adjunction. It is difficult to give the answer, because under current assumptions there are two unrelated properties that distinguish between adjunction and substitution:

- (38) a. If a category A has selectional features for a category B, set-Merge (Merge by substitution) applies and A projects. Otherwise pair-Merge (Merge by adjunction) applies.
- b. A category that adjoins to another category does not change its bar level. A category that substitutes to another category changes its bar level.

Although these two definitions are implicitly assumed to correlate with each other, such a correlation does not follow from any principle. We therefore expect to find cases of Merge that qualify as both substitution and adjunction, a contradiction in terms. The Head Merge of functional categories that we would like to propose is a case in point. Functional categories such as Comp, Neg, and tense

are currently assumed to have selectional properties, and therefore, by virtue of (38a), they should merge by substitution. However, Head-to-Head Merge does not change bar levels, and as such it qualifies as adjunction. This difficulty may be solved by simply keeping the two definitions separate. I will thus assume that Head-to-Head Merge may be either of the substitution or of the adjunction type, depending on the presence or lack of selectional features (see Comp, Neg, and tense on the one hand, and pronominal and adverbial clitics on the other). But regardless of this difference, Head-to-Head Merge does not change bar levels: several X elements merge to form a complex X element.

Head-to-Head Merge is a possible, not an obligatory, choice for functional categories, which may differ cross-linguistically as to whether they merge with a maximal projection or with another functional X category. More concretely, we can assume a universal characterization of functional categories in terms of their selectional features (Comp selects Neg, Neg selects T and T selects V), together with parametrizing whether these selectional features are satisfied by merging with NegP, TP and VP, or with Neg, Tense and V. Given the existence of Head-to-Head Merge, Comp may directly merge with (Neg and) T or it may merge with NegP (or with TP in case a Neg element is absent). The first option characterizes subjunctive particles in Balkan languages.

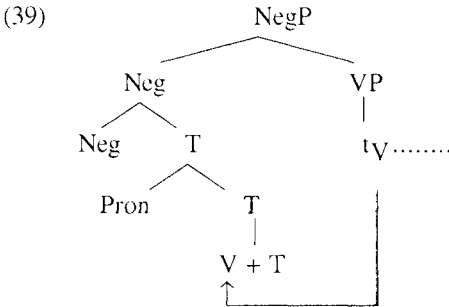
By allowing functional X categories to merge with each other, we can construct syntactic objects that have less structure than those postulated in GB analyses. Thus, we need not merge each functional X category with a complement; we may instead form a functional complex X element and only then merge it with VP. This alternative derivation relies on a generalized transformation: a complex structure is obtained by merging two substructures that are built in parallel,²⁵ the VP constituent on the one hand and the complex functional X element on the other. In this version of the copy theory of movement we may pick up a category in a phrase, make a copy of it, and build another piece of structure by merging this copy with other categories.

Let us now see in more detail how we build a complex X element out of functional categories such as Comp, Neg, T, and clitics. The relative linear order in which these elements appear can be derived from the order in which Merge applies, and the order in which Merge applies in turn depends on the selectional features of the functional categories. The derivation would rely on the following steps:

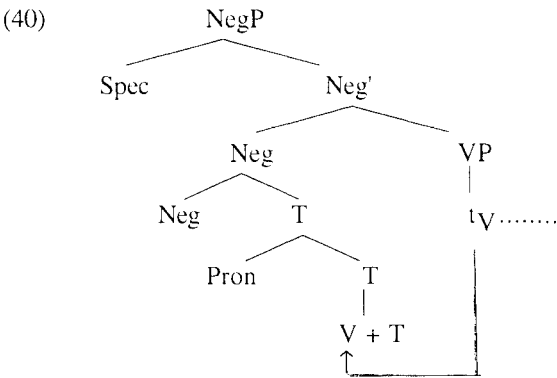
- (a) V merges with its arguments and projects VP (or vP, but this alternative is not relevant for our analysis).
- (b) A copy of V is made and merged with Infl. I assume that the selectional features of Infl are satisfied not by merging with V itself but rather by merging (later in the derivation) with the independently constructed VP. In other words, I merges by substitution with VP and by adjunction with V.
- (c) Pronominal clitics adjoin to T, resulting in a constituent Pron + V + T, labeled T.

- (d) Neg has a T feature, and as such it attracts T, thus giving rise to a constituent Neg + Pron + V + T, labeled Neg.

We have so far derived a complex X^0 constituent by applying Merge between V, tense, pronominal, and negative clitics. The resulting complex X element then merges with VP, and a chain is created between the verb in the complex X and the verb in VP. For readability we use X'-type labels, but the reader should bear in mind that they have no theoretical status:



At this point in the derivation a constituent is merged into the Spec position of the complex head:



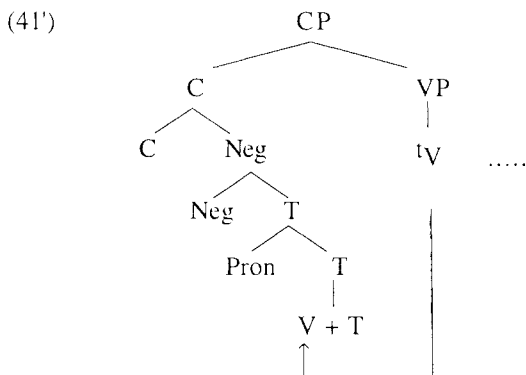
Let us now consider a language in which T does not have an EPP feature. Such a language need not (maybe cannot) project the Spec, TP position, and our system allows C to merge with the complex functional X constituent. Since the latter has the label Neg, it is attracted by C, which has a Neg selectional feature.²⁶ Once the complex X element is built it is merged with the VP, as above. This derivation is what we need for Balkan subjunctive clauses:

(41) Comp – Neg – Pron – V + Infl

Rom

a. *sā nu o vād*
 that-SUBJ not her-CL.ACC see-1SG
 'that I should not see her'

b. *a nu o vedeā*
 to not her-CL.ACC see-INF
 'not to see her'



The syntactic objects shown in (41) allow Merge to target their Spec position, which forces *ca* to show up

(42) *Vreau ca Maria/o prietenā/nimeni*

(I) want-1SG that Mary/a friend/nobody

sā nu vinā mâine.

sā not come-3SG.SUBJ tomorrow

'I want Mary/a friend/nobody to come tomorrow.'

The representation in (41') is confronted with two interrelated problems. The first one concerns the Merge between a complex X^0 constituent labeled C and VP. Since C does not select for V, how come this kind of Merge is allowed? The assumption required here is that a complex X element inherits the selectional features of the lowest simple functional X contained in it. The second problem comes from the fact that the relation between V and its trace does not obey the C-command constraint. We may assume that branching nodes internal to complex X constituents do not count for the computation of C-command.

7. Locality

Let us now see how the bare phrase structure of Balkan subjunctives assumed above explains why Balkan subjunctives allow their null subjects to enter control, raising, and nonobviating relations with argument DPs in the main clause:

- (43) a. *Ion a încercat să -l* Rom
 John have-3SG try-PART să him-CL.ACC
pedepsească pe Mihai.
 punish-3SG.SUBJ on Mihai
 'John tried to punish Mihai.'
- b. *Ion vrea să plece devreme mâine.*
 John wants să leave-3SG.SUBJ early tomorrow
 'John wants to leave early tomorrow.'
- c. *Copiii tăi par să fie foarte oboșiți.*
 children.the yours seem să be-3PL.SUBJ very tired
 'Your children seem to be very tired.'

As argued in previous sections, the fact that Balkan subjunctives allow obligatory control indicates that the lack of obviation illustrated in (43b) is only apparent: (43b) is, as a matter of fact, a control configuration. Although control (see (43a) and (43b)) and subject raising (see (43c)) differ with respect to θ structure, they rely on basically the same type of syntactic relation, characterized as Move F in Manzini and Roussou's (1998) implementation, according to which θ roles (construed as θ features) are attracted from the (embedded) verb to a DP argument that is directly generated (by first Merge) in the position in which it is overtly realized. Under this view, null subjects, regardless of whether they are *pro*, PRO or DP trace, are not projected, and, correlatively, the locality constraint does not concern the relation between the embedded subject position and an argument in the main clause, but rather the relation between the embedded V (or Infl), which carries the θ features available for attraction, and a DP attractor in the main clause, which needs θ features. By assumption, one and the same DP may attract one θ role, as in subject-raising configurations (see (43c)), or more than one θ role, as in control ((43a)–(43b)).

Within Manzini and Roussou's (1998) proposal, the locality constraint on Move F is stated as a revised version of the MLC, which has the effect that the movement of a θ feature is blocked by a minimal attractor. How is this locality constraint met in Balkan subjunctives?

7.1. +Finite Infl and locality

In Balkan subjunctives, Move F is allowed out of clauses headed by a +finite Infl, that is, by an Infl that bears Agr features. Within the minimalist revision of the theory of *pro* proposed by Savoia and Manzini (in press), this empty category is not projected; instead, it is the +finite Infl itself that attracts the relevant θ feature from V and as such functions as an argument.²⁷ The problem is that once a θ feature is checked by an adequate attractor (i.e., one that checks a strong D feature), it can no longer move on toward another attractor (this locality constraint follows from (some version of) the MLC). In sum, θ assignment would be unable to get out of the embedded clause, and the Balkan control and

NP-raising phenomena would remain unexplained. Note, however, that the attracting properties of +finite Infl need to be relaxed on independent grounds. Consider the alternation between null subjects and overt subjects in *pro*-drop languages. In order to deal with null-subject configurations, we have to assume that Infl may be a legitimate θ -role attractor, which raises the question of the assignment of a θ role in overt-subject sequences:

- (44) a. *A* *mâncat*. Rom
have-3SG. eat-PART
‘He/she has eaten.’
- b. *Ion* *a* *mâncat*.
John have-3SG. eat-PART
‘John has eaten.’

If the Infl of *a mâncat* attracts the external θ role in both (44a) and (44b), how does *Ion* get a θ role in (44b)?

A similar problem arises for object clitics in clitic-doubling languages. To solve this problem I can suggest the following assumption:

- (45) X^0 constituents may pass on the θ role that they attract.

By contrast, DP constituents that occupy D positions obligatorily retain the θ role that they attract.

7.2. C + T Merge and locality

The last question to ask is why Move F can bypass the C of the embedded subjunctive clause. According to Manzini and Roussou (1998), the only legitimate attractors of θ roles are DPs or +finite C elements, which as such are potential blockers of local relations (due to the MLC). One could then suggest that Balkan subjunctives do not induce locality violations because their C's are –finite. But arguably, the C constituent of Balkan subjunctives (whether we take C to be the subjunctive particle itself or a null element is irrelevant) and the C that introduces subjunctives in *pro*-drop Romance languages (other than Romanian) are alike from the point of view of their +/-finiteness, whether the finiteness of C is related to the Agr features of the embedded Infl or to the type of T element.²⁸ And yet, C induces locality violations in Romance but not in Balkan languages:

- (46) c. *Juan_i quiere que pro_j/*_i salga temprano.* Spa
John wants that go out-3SG.SUBJ early
‘John wants him/her/*himself to go out.’

The constituent structure of Balkan subjunctives motivated above on independent grounds provides us with a natural explanation for the fact that they allow local relations: it is because subjunctive particles merge with T (or with Neg) via Head-to-Head Merge that they do not induce locality violations:

- (47) A feature (of a subconstituent) of a complex X^0 cannot function as an attractor for another feature of the same X^0 .

This principle is probably related to the principle according to which features do not move independently but in bundles: since Agr and subjunctive particles belong to the same X, they form a bundle that moves as a whole; consequently, no feature belonging to the bundle may attract another feature of the same bundle.

Once again, our explanation holds regardless of the exact label of the subjunctive particles: (a) if they are indeed under C, nothing else needs to be added to our account; (b) if they are under Mood or some other X belonging to Infl, we must consider two logical possibilities: (i) C is not projected, in which case, nothing else needs to be added; or (ii) a null C is projected, in which case we need to assume that it also merges with the functional complex X.

Consider finally *ca* subjunctives in Romanian. The data examined in section 6.1 above showed that *ca* has a preverbal D position associated with it, and since such a position counts as an attractor for the embedded θ roles, Move F is prevented from targeting an argument of the main clause. This accounts for the ungrammaticality of obligatory control and subject raising in *ca* subjunctives. Since according to this account it is not *ca* itself but rather the associated D position that counts as a blocking minimal attractor, we expect control and subject raising to be illegitimate in all of the Balkan configurations in which the subjunctive particles are preceded by a displaced constituent, even if no counterpart of *ca* exists in certain languages, for example, in Greek.

The Balkan data provide insight into the analysis of Portuguese inflected infinitives, which neither allow obligatory control nor subject raising. Since the Balkan subjunctive Infl allows these relations although it contains Agr features, we cannot assume that it is the Agr features themselves that block control and subject raising in inflected Portuguese infinitivals. It is instead reasonable to believe that the blocking effect is due to the embedded subject, which is of necessity preverbal, and as such acts as a local attractor of the θ roles of the embedded V (and Infl).

Notes

This paper pursues the line of inquiry proposed for Romanian in chapters 3–4 of Dobrovie-Sorin (1994). The main empirical hypothesis is maintained and extended to the analysis of other Balkan languages. The GB implementation is restated in minimalist terms. For the purposes at hand the important advantage of the minimalist framework comes from the bare phrase structure format, which will allow us to propose a much simpler constituent structure for the Balkan verbal cluster. The proposal made here (see section 6 in particular) has interesting consequences for the analysis of cliticization (see Dobrovie-Sorin and Galves 1998). I would like to thank Larisa Avram, Alexandra Cornilescu, and Charlotte Galves for their comments on earlier versions of this paper.

1. This term is used in Greek grammars; in Romanian and Bulgarian grammars the corresponding mood is called “conjunctive.”

2. In other contexts the infinitive was replaced by the participle, but this evolution is out of the scope of this paper. Joseph (1983) points out a number of problems regarding the various diachronic explanations to be found in the literature, which all try to explain the loss of the infinitive as being due to the properties of the infinitive itself, rather than to the properties of the subjunctive.

3. In line with Williams (1980), Bouchard (1984), Koster (1984), Manzini (1983), and Lebeaux (1985), I assume that obligatory and nonobligatory control are two distinct syntactic relations. I will come back to nonobligatory control in sections 2.3., 2.4. and 2.5.

4. Balkan subjunctive clauses are headed by the so-called subjunctive particles, the status of which is ambiguous between InfI and C (see section 6). Since they do not have any clear counterpart in English, I have retained them as such in the glosses: *să*, *da*, *na*, and *të* for Romanian, Bulgarian, Greek, and Albanian, respectively.

5. This is an oversimplified presentation of the theory of PRO, but it is sufficient for our present purposes.

6. The reader is referred to these works for theoretical criticism and ample empirical evidence against the analysis of control phenomena in terms of PRO. Most problems remain under Chomsky and Lasnik's (1993) implementation according to which PRO is defined as the empty category that is assigned null Case. For detailed criticism see Hornstein (1999) and Manzini and Roussou (1998), who propose instead a minimalist restatement of the GB line of research adopted here.

7. According to Manzini (1983), PRO is not a standard anaphor but an "anaphor without a governing category," which is subject to a revised principle A: an anaphor without a governing category must be bound in the governing category of its domain. Manzini's theory may well turn out to be right for optional control. As to obligatory control, I will assume that the other authors mentioned above are correct in trying to reduce it to standard binding.

8. Compare Borer (1989), according to whom any kind of controlled subject is to be analyzed as a case of "anaphoric Agr."

9. This does not force us to assume an intrinsic [+an] feature that would characterize infinitival subjects: infinitival subjects are empty categories that are identified by no features (compare *pro*, which is identified by Agr), and therefore they must necessarily enter a relation with an antecedent that provides them with the features necessary for the assignment of reference; otherwise they take arbitrary reference.

10. Although I believe that Koster's proposal is completely right, his terminology might be confusing: the obligatorily controlled empty subject is referred to as "governed PRO" or "anaphoric PRO," or "obligatory PRO." Given the current theory of PRO, these labels are contradictory. I believe that Koster has preserved the label PRO in order to capture the θ structure differences between controlled and raised subjects (see the discussion in the text above).

11. See in particular Kayne's (1984) argument in favor of the Comp status of *de* in French:

- | | | | | | | |
|------|--------------------------|---------------------|----------------|-------------------------|-----------------|-----------------|
| (i) | <i>Jean</i> _i | <i>s'est trouvé</i> | (* <i>d'</i>) | <i>e</i> _i | <i>être</i> | <i>là-bas</i> . |
| | John _i | happened | (*DE) | <i>e</i> _i | be | there. |
| (ii) | <i>Jean</i> _i | <i>essaie</i> | <i>de</i> | <i>PRO</i> _i | <i>partir</i> . | |
| | John | tries | DE | PRO | leave. | |

The example in (i) is ungrammatical because *de* heads a CP projection that counts as the governing category in which the embedded subject must be bound, and this conflicts with the requirement that the NP trace *be* be bound by the raised subject. Compare the control configuration in (ii), which allows *de*. Given the identification of control

and NP raising assumed here, some alternative explanation must be found for the peculiarities in the distribution of *de*.

12. For reasons that I will not try to understand, Balkan languages differ with respect to the productivity of raising to subject: Romanian accepts this construction with verbs such as epistemic *a putea* ‘may’, *a părea* ‘to seem’, and *a se nimeri* ‘to happen’. In Bulgarian and Greek, however, speakers tend to accept as “natural” only the impersonal use of these verbs. Greek shows interesting differences in meaning between the impersonal and the personal constructions, for those verbs that accept the two environments (Philippaki-Warbuton 1987).

13. Manzini and Roussou assume θ roles to be Asp features. This is reminiscent of Borer (1994), although the implementation is different: there are no functional Asp projections (their role is played by recursive V projections), and DPs are not first merged in the Spec positions of AspP but directly merged in their overt position. To keep the discussion as simple as possible, I will talk about θ features.

14. By assumption, once a θ feature is attracted (see the θ feature of *started* in the case at hand), its trace does not block the attraction of another θ feature (that of *to work*) by the same attractor.

15. This generalization should probably be relaxed: a number of interesting exceptions do exist (see Ruwet 1984 and section 6.3).

16. Rivero (1989) solves this problem by stipulating that Balkan subjunctives have an ambiguous status depending on the context in which they appear: in raising configurations, they cannot count as the GC of their subject, whereas in obviation contexts they must count as such. This ambiguous status of subjunctives clauses is not supported by independent evidence.

17. Chomsky (1981) uses the Avoid Pronoun Principle in order to account for the fact that in English, genitive pronouns may be dropped in certain NPs. Jaeggli (1982) uses the same principle to capture the fact that empty subjects and object clitics are used instead of phonologically realized pronominal subjects and nonlitic pronominal objects, respectively. Chomsky (1981.142.note 45) also reports a suggestion by J. Guéron, who proposes to derive the obviation effect from Avoid Pronoun. Bouchard’s (1984) Elsewhere Principle and Farkas’s (1992) “blocking approach” constitute two other slightly different attempts at using versions of the Avoid Pronoun Principle in order to account for the obviation effect.

18. The existence of this element is language specific. Thus, although all Balkan languages have subjunctive particles comparable to *să*, they may lack a counterpart of *ca* (see Modern Greek in particular).

19. In oral speech, examples of this kind are acceptable with heavy focus stress on the dislocated constituent.

20. Arguably, the verb raises to T rather than to *să* itself, regardless of whether we assume inflected verbs to be formed in the lexicon (and raised to an abstract T in the syntax) or to be formed in the syntax, by raising a V root to the tense features, hosted under T.

21. I follow Dobrovie-Sorin (1994) and Chomsky (1995, chap. 4) in assuming that Agr does not project a functional category of its own but merely adjoins to tense.

22. Apparent counterexamples exist:

- | | | | | | | |
|-----|----------------|--------------|-----------|--------------------------|------------|----------------|
| (i) | <i>I-</i> | | <i>am</i> | <i>permis</i> | <i>lui</i> | <i>Ion</i> |
| | [I] him-CL.ACC | | have | allowed | him | to John |
| | | | | | | |
| | <i>ca</i> | <i>măine</i> | | <i>să stea</i> | | <i>a casă.</i> |
| | that | tomorrow | | <i>să stay</i> -3SG.SUBJ | | at home |

Examples of this type (which are not perfectly grammatical to my ear) differ from (35) in that the controller is not the main clause subject, but the indirect object. Lack of obviation can be observed in Romance languages other than Romanian in similar cases (see Picallo 1985 and Jakubowicz 1985):

- (ii) *Le permîţire /dir  a Juan que  l entregue el premio.*
 him-DAT (I) shall allow/ tell John-DAT that he give-3SG the prize

The explanation of the grammaticality of (i) will then be the same as the one that we may be led to propose for (ii).

23. In substandard Romanian *ca* may show up in front of *s * subjunctives that lack a dislocated constituent. However, even for this dialect, *ca s * subjunctives are ungrammatical with obligatory control and raising verbs: to be specific, the examples in (35) are ungrammatical even if we delete the dislocated constituents and maintain *ca* in front of *s *. This indicates that *ca* does function as a governor of Agr, even if *ca* is apparently adjacent to *s *, and in principle incorporation could apply (for further discussion see section 6.2).

24. Bar levels have no theoretical status within BPS, the notions of minimal and maximal projection are contextually defined at each step of the derivation and are not exclusive of each other:

- (i) A category that is not dominated by a category of the same type is maximal.
 (ii) A category that does not dominate any category is minimal.

I will continue to use the term "X category" as a shorthand for "minimal nonmaximal category."

25. This mechanism is labelled "side-ward movement" by Nunes (1995), who is concerned with DP movement, and "interarboreal operation" by Bobaljik and Brown (1997), who use it in order to deal with V-to-T movement. Under the current analysis, the verb moves out of VP and adjoins to T, which violates strict cyclicity (formulated as the "extension requirement" by Chomsky (1995)). To solve this problem, Bobaljik and Brown (1997) argue in favor of a different kind of derivation, in which the verb adjoins to T prior to the Merge of tense and VP. It is the resulting T complex that is subsequently merged with the VP, projecting TP. The Head-to-Head Merge proposed here extends this kind of derivation to the other functional categories. It is worth noting that the relations between Neg and T or Comp and Neg differ from that between T and V insofar as they rely first on Merge. Interarboreal operations are thus needed not only in order to solve the cyclicity problem of V-to-Tense movement, but more generally in order to construct complex X categories.

26. In case Neg is not present, we may assume an X head marked with the opposite feature, that is, a null affirmative head (the selectional feature of C would be "polarity" rather than "Neg" or "affirmative"). Or, we may assume that C selects T by transitivity (C selects Neg and Neg selects T, hence C selects T).

27. For other attempts to eliminate *pro* see Nash and Rouveret (1996) and Alexiadou and Anagnostopoulou (1996).

28. It has been proposed more than once that the tense of subjunctives is dependent on the tense of the main clause (but see Farkas 1992, who argues convincingly that the correct characterization of the semantic relation between subjunctives and their main clause is world dependency rather than tense dependency. See also Rochette (1988), who argues, precisely on the basis of their tense/world dependency, that Romance subjunctives are IP rather than CP constituents.

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Control and Raising in and out of Subjunctive Complements

Anna Roussou

1. Introduction

The purpose of this chapter is to discuss control and raising in the Balkan languages, which lack infinitives and make use of mood distinctions instead. The \pm finite distinction is crucially involved in most analyses of these phenomena since subjunctive clauses can be characterized as +finite. The question then is whether the empty subject in control subjunctive complements is PRO or *pro* and whether raising is possible out of the relevant complements. In order to provide an analysis of these issues, I will first consider the notion of finiteness as such, and in particular how it interacts with mood. It will be argued that finiteness is not a property solely associated with T or Agr but is a property of the C system that interacts with the inflectional domain and the properties of the selecting predicate in complement clauses. I will next offer an analysis of control and raising in subjunctive contexts. Following Manzini and Roussou (1998) I will assume that control reduces to the association of one DP argument with two thematic positions, while raising involves the association of one DP with a single thematic position, namely the one provided by the embedded predicate. I will further argue that the agreement found in subjunctive control and raising complements is the morphological realization of the dependency formed between a thematic position in the complement clause and the argument (DP) position in the matrix. This analysis allows us to treat control and raising in languages with and without infinitives in a similar fashion: these complements are reduced clauses that crucially lack an AgrS position (the DP subject position)—and possibly a Fin position in the C system—allowing for the association of the embedded θ role with a matrix DP. This analysis will be linked to the notion of "restructuring" in the sense of creating a single clausal domain. I will finally consider how an overtly filled versus null C interacts with control and raising, arguing that an overt C lexicalizes the Fin position, creating a separate clause. As a result, *modulo* the Extended Projection Principle (EPP), AgrS is projected,

and the subject θ role becomes associated with the embedded subject position, ruling out the possibility of control (and raising).

It is a rather standard assumption that there is a strong correlation between C and I (cf. Rosenbaum 1967, Stowell 1982, among others). One way of viewing this correlation is to assume that syntactically, C binds a temporal variable in I, so that tense is anchored to the speech time (Enç 1987). Morphologically, this relationship can be expressed in various ways. For example, in English the C *that* selects a finite I, while the prepositional C *for* is compatible with an infinitive, as in (1):

- (1) a. *I think that he will leave/ *to leave.*
 b. *I arranged for Peter to leave/ *will leave.*

Similarly, the V2 phenomenon illustrated in (2) as the result of I to C movement (den Besten 1983) is restricted to root finite clauses, while in embedded clauses *daß* realizes the C position:

- (2) a. *Das Buch hat Peter gelesen.*
 'Peter has read the book.'
 b. *Ich glaube daß Peter das Buch gelesen hat.*
 'I think that Peter has read the book.'

A number of other syntactic phenomena are taken to be contingent on the \pm finite distinction. In particular, raising and control occur only within a $-$ finite context, as shown in (3a) and (3b) respectively:

- (3) a. *John seems [t John to be happy.]*
 b. *John tried [PRO to escape.]*

In (3a) *John* raises to the matrix Spec, IP to check its Case feature, given that the infinitival I has no Case feature. In (3b) only PRO can appear as the subject of the embedded clause due to the fact that a $-$ finite I is not a governor, satisfying the requirement that PRO be ungoverned (Chomsky 1982). Alternatively, we could assume, following Chomsky and Lasnik (1993) and Chomsky (1995), that PRO requires a special type of Case, namely null Case, which can only be assigned by a $-$ finite I.

In the Balkan languages, on the other hand, the correlation between C and I along the \pm finite distinction seems to hold only partially, since these languages are characterized by the (complete or partial) absence of infinitives and the use of the subjunctive instead (see Joseph 1983 for the loss of infinitives in these languages). As the Modern Greek example below shows, the subjunctive is systematically found in contexts associated with the infinitive in Romance languages and English:

- (4) a. *θelo na fiyo.* MGrk
 want-1SG PRT go-1SG

- b. *Voglio andare.* Ita
 want-1SG go
 'I want to go.'

In (4a) the Greek subjunctive complement is introduced by the particle *na*. I will assume that *na* is actually the subjunctive mood marker (Philippaki-Warbuton and Veloudis 1984). The same realization of mood by means of particles is found in the other Balkan languages as well (from Terzi 1992):

- (5) a. *Ion vrea să manince.* Rom
 John want-3SG PRT eat-3SG
 b. *Jani do të hajë.* Alb
 John want-3SG PRT eat-3SG
 'John wants to eat.'

The subjunctive particles, corresponding to the MGrk *na*, are *să* in Romanian (Motapanyane 1994, Terzi 1992) and *të* in Albanian (Turano 1994, Terzi 1992). I will also assume, following a number of studies in the literature, that the subjunctive particles are the realization of the mood head, which is situated between C and I/T in the clause structure (cf. Philippaki-Warbuton 1992, Rivero 1994, Terzi 1992, Turano 1994, Tsimpli 1995, among others), as illustrated in (6) below:

- (6) [_{CP} C [_{MoodP} Mood [_{TP} T]]]

In addition to having a subjunctive particle, Albanian and Romanian also allow for a specialized subjunctive C, *ca* and *që* respectively:

- (7) a. *Ion vrea ca să manince* Rom
 John want-3SG that PRT eat-3SG
 b. *Jani do që të hajë.* Alb
 John want-3SG that PRT eat-3SG
 'John wants him/her to eat.'

Modern Greek, on the other hand, lacks this option. Furthermore, as expected, the subjunctive is incompatible with the indicative C, realized as *că* in Romanian, *se* in Albanian, and *oti* in Greek:

- (8) a. **Ion vrea că să manince* Rom
 the John want-3SG that PRT eat-3SG
 b. **Jani do se të hajë.* Alb
 the John want-3SG that PRT eat-3SG
 c. **O Janis theli oti na fai.* MGrk
 the John want-3SG that PRT eat-3SG
 'John wants (him/her) to eat.'

As the above data show, the morphological correlation between C and I in the Balkan languages seems to be regulated along mood distinctions, while in English and German it follows the \pm finite divide.

Interestingly, in the Romance languages (i.e., French and Italian) which have infinitival as well as subjunctive complements, C is neutral to mood properties (subjunctive versus indicative) but sensitive to the finite versus nonfinite distinction, as the French examples below show:

- (9) a. *Jean veut partir.* (infinitive)
 ‘John wants to leave.’
 b. *Jean pense que Marie part.* (indicative)
 ‘John thinks that Mary will leave.’
 c. *Jean veut que Marie parte.* (subjunctive)
 ‘John wants Mary to leave.’

In (9b) and (9c) the C is *que*, while in (9a) C has no phonological realization (although it is possible to have *de* infinitivals¹). One difference between Balkan and Romance languages is that in the former group subjunctive mood is realised by means of a designated morpheme (the subjunctive particle), while in Romance it is realised on the verbal form. However, it is not clear whether this kind of realization is sufficient to account for the differences in the C system. This is a valid observation, but it need not concern us here (see Tsoulas 1995 and note 4).

Going back to the Balkan languages, we notice that in the absence of infinitivals, control and raising occur within subjunctive complements, as shown in (10) from Greek:

- (10) a. *O Janis prospaθise na fiji.* MGrk
 the John tried-3SG PRT leave-3SG
 ‘John tried to leave.’
 b. *I fitites fenonde na djavazun poli.*
 the students seem-3PL PRT read-3PL a lot
 ‘The students seem to study a lot.’

The immediate question that arises then is how control and raising are to be analyzed in the Balkan languages: if these phenomena require a –finite context, then the implication is that at least some subjunctive complements should be analyzed as –finite. To be more precise, the subjunctive complements that correspond to control and raising infinitives in English and Romance should be treated as –finite. The next question then is how finiteness is to be defined. Note that in most analyses the empty category (EC) involved in control and raising complements is to some extent contingent on what qualifies as a –finite context. Suppose that –finite corresponds to absence of tense specification, and in particular the +past specification (Stowell 1982); then if the relevant subjunctive complements do not show T alternations, that is, past tense, they could still be considered as –finite despite the presence of agreement.

Iatridou (1993) considers Modern Greek subjunctive complements and argues that indeed in this case there is no T specification, since the embedded verb cannot be inflected for past tense, as the contrast between (11a) and (11b) shows:

- (11) a. *Prospathise na fijil*efije.* MGrk
 tried-3SG PRT leave-3SG/left-3SG
 'He tried to leave.'
- b. *Pistevo na fijilefije o Janis.*
 believe1SG PRT leave 3SG/left-3SG the John
 'I believe that John will leave/left.'

Example (11a) is a control configuration and disallows past tense subjunctive. In (11b), on the other hand, the *na*-clause is a complement to an epistemic predicate and the embedded T can be specified as +past. According to Iatridou, the absence of T specification also implies absence of nominative Case and therefore of a governor (assuming that Case is assigned under government). Thus, PRO is possible in (11a) but not in (11b) since in the latter example the subjunctive T assigns nominative and therefore qualifies as a governor. The pattern in (11a) extends to raising complements as well, and therefore movement of the embedded subject to the matrix clause is triggered under the need for Case checking, exactly as in English.

Consider next an alternative construal of finiteness: if finiteness is associated with agreement, then the Balkan subjunctive clauses will always be finite.² Following this assumption, Philippaki-Warbuton (1987) argues that the subject in control structures cannot be PRO, but must be *pro* which is independently allowed since Greek is a null subject language. The coreference effect (control) simply follows from the semantic properties of the selecting predicate. Similarly, Turano (1994) argues for a *pro* analysis in control complements in Albanian, assuming along with Borer (1989) that these contexts are characterized by anaphoric agreement. Moreover, if finiteness and nominative Case are a property of Agr, then subjunctive complements cannot allow for raising. Thus, (9b), which seems like a raising construction, must have a different representation: what appears as the matrix subject is a topicalized element instead, while the embedded subject position, as well as the matrix one, is occupied by (an expletive) *pro*. The same analysis can extend to the other Balkan languages (but see Rivero 1989 for a different approach).

Terzi (1992) also takes subjunctive complements to be finite but relates the empty category involved to the properties of C and not I. Thus, PRO is compatible with a finite (Agr) context provided that C, a potential head governor, is not lexically filled. If C is lexically realised, then PRO will be governed, violating the PRO theorem.³ In this case the only alternative is to have an overt subject, or a *pro*, which is disjoint in reference from the matrix subject, on the assumption that a subjunctive T is anaphoric (Picallo 1985), creating a single binding domain between the matrix and the embedded clause: *pro* cannot be coreferential with the matrix subject, otherwise principle B of binding theory will be violated. Therefore coreference always implies that the embedded subject is PRO and

that there is no overt material in the embedded C position. This is illustrated in (12) below:

- (12) a. [[CP C₀ [IP PRO I]]] C is null = Coreference
 b. [[CP C [IP *pro* I]]] C is overtly realized = Disjoint reference

The C position in (12b) can be filled either by an overt complementizer or by I to C movement (for similar proposals see also Roussou 1994, Varlokosta 1994, and Turano 1994).

Chomsky and Lasnik (1993), on the other hand, argue that PRO requires a special type of Case, namely null Case, which can only be checked by a –finite I. According to Chomsky (1995), an infinitival I in control complements allows for a PRO because it has a null Case feature as well as D (the Extended Projection Principle, EPP) and ϕ features; all of them are [–interpretable]. An infinitival I in a raising context has no Case but only D (and ϕ) features. Thus, the embedded subject raises to the first I position, where its Case feature can be checked (cf. Martin 1992). Indeed, Chomsky (1995) takes raising of the Balkan type in (10b) to clearly show the dissociation between Case and agreement: the subject DP checks the D and ϕ features of the embedded I, and in the absence of Case it raises to the matrix I, where Case checking takes place. Based on these assumptions, Watanabe (1993) modifies Terzi's (1992) analysis along the following lines: a subjunctive I can assign nominative Case, if C is lexically filled. If C is null, I assigns null Case, and therefore PRO, that is, control, is the only possibility. In raising constructions the realization of C is not crucial, since under standard assumptions, raising complements are IPs and not CPs. More recently, Terzi (1997) argues that it is the mood head, and not T, that assigns null Case in the Balkan languages.

From the discussion that precedes it is clear that there is no consensus as to what determines finiteness, and in that respect what conditions license the null subject in control structures. The latter point is crucial, since different assumptions about finiteness give rise to different accounts for the empty subject. In GB terms, the distribution of PRO is regulated by government, while in more recent accounts it is regulated by null Case, assuming that government is not conceptually desirable (cf. Chomsky 1995). However, the null Case approach to PRO is not without problems either: although null Case might predict the context where PRO is found, it is not clear what determines the antecedent of PRO, that is, control proper, which in GB terms is captured under the Minimal Distance Principle (Rosenbaum 1967): PRO, as an anaphoric element, chooses the closest antecedent. Similarly it is not clear how arbitrary PRO is accounted for. Faced with this state of affairs, Manzini and Roussou (1998) and Hornstein (1999) independently propose the elimination of PRO. Based on different assumptions, Farkas (1992b) points out that the analyses that determine the properties of infinitival and subjunctive complements in terms of the empty category involved (as the result of binding, government, or Case) have a serious drawback: they focus on the properties of the empty category and to a large extent

ignore the properties of the relevant complement clauses as these are determined by the lexical properties of the predicates that select them.

To summarize, the issue of control and raising in languages of the Balkan type which in general lack infinitives, seems to be dependent on the definition of finiteness. The picture becomes even more complicated due to the fact that the licensing requirements of empty categories are not clearly defined either. In order to provide an account for the Balkan cases, we will first discuss the notion of finiteness and then turn to an analysis of control and raising in the relevant group of languages. The proposed analysis will not focus on the nature of the empty categories involved as it dispenses with PRO, *pro* and A traces (cf. Manzini and Roussou 1998). The advantage of this approach is that it allows us to treat the Balkan cases on a par with their Romance and English counterparts.

2. Subjunctives and finiteness

2.1. C and finiteness

As already discussed in the previous section, finiteness can be defined either in terms of agreement or T specifications. The data in (1)–(2) from English and German, and in (4)–(5) from the Balkan languages, on the other hand, showed that the correlation between C and I can be morphologically manifested in two different ways: in the former case C is sensitive to the realization of the T head, while in the latter it is sensitive to the mood head. This typological distinction might offer a new insight into the notion of finiteness. Note that in more recent analyses the role of C in the \pm finite distinction has received more attention. For example, Rizzi (1997) argues for an articulated C structure, splitting C into a Fin(ite) and force head with the possible interpolation of other heads in between. Force is the highest C head associated with clause typing features (e.g., Q). Fin, on the other hand, is the lowest C head that interfaces with the I system, that is, with T or mood and agreement:

- (13) [_{ForceP} Force [_{TOPP/FocP} Topic/Focus [_{FinP} Fin [_{IP} I...]]]]

Thus, in Rizzi's terms Fin is a property of the C system which interacts with the I system, giving rise to different typological patterns of the type mentioned above.

Roberts and Roussou (1998) further elaborate on the notion of Fin in connection to Germanic V2. According to their analysis, Fin binds T, which in turn binds the temporal argument associated with the predicate (the event position in the sense of Higginbotham 1985), ultimately anchoring it to the speech time (cf. Enç 1987). In V2 constructions Fin is spelled out by attracting V or the auxiliary; this realization is subject to parametric variation. A similar approach is taken by Holmberg and Platzack (1995), who argue, though, that Fin may be realized in C (V2 languages) or in I (non V2 languages). In any case, they point out that 'finiteness is a prerequisite for tense and mood: unless a predication is related to the time of the utterance via the concept of finiteness, we have no

basis for expressing the relative position in time of the situation expressed by the predication *vis-à-vis* the utterance, and we cannot relate the attitude of the speaker to this situation" (Holmberg and Platzack 1995:23). As we can see from the preceding quotation, both mood and tense relate to Fin. Extending this observation a bit further, we note that the subject is also related to Fin; in other words, the position associated with the subject features, namely AgrS, also correlates with Fin. Note that while T must relate to the utterance time so that the event position of the predicate is temporally evaluated, the same holds for the subject (AgrS), since the distinction between speaker and hearer (mainly the person distinction) is also evaluated in connection to the utterance time (see also Davis 1998). Under this analysis, finiteness cannot simply translate to the presence of tense or agreement but is a correlate of tense and Agr (and mood), namely the heads that (to a large extent) define the I domain, and Fin, the position providing the anchoring point to the speech time.⁴

What emerges from the brief discussion so far is that identifying –finite with –T or with lack of agreement is not always correct. Matrix declaratives with modals, for example, are standardly analyzed as finite although it is not clear that they have any T specification:

- (14) a. *John may move to France.*
 b. *John must move to France.*

Suppose we interpret the modals *may* and *must* in (13) as deontic (permission and obligation, respectively). It is not clear that there is any temporal specification in either of these two cases. Instead the modal shifts the evaluation time to the future, as Enç (1997) argues. The underlying assumption of her analysis is that modals are quantificational expressions over possible worlds: *may* involves existential quantification, while *must* involves universal quantification (over possible worlds consistent with obligations, etc.). In (14) the event position of the verb is by default identified with the utterance time (possibly due to the absence of T, or an interval provided by T) which shifts to the future under the scope of the modal. In nonmodalized matrix declaratives, T binds the event position associated with the predicate and provides the interval that is evaluated with respect to the matrix time; thus, no modal shifting takes place. Building on these assumptions we could take Fin to be the position associated with existential/universal quantification (as well as other similar operators, such as generic ones) over time intervals (T) or possible worlds (modalized contexts).

Overall, the point that is made in this brief discussion is that finiteness is a property of C interacting with the functional heads in the I domain. If this is correct, then we would not expect to find major differences between Romance or English and the Balkan languages when it comes to complement clauses despite the different realizations as infinitives versus subjunctives. What is crucial is that these complements exhibit certain properties that are determined by the selecting predicate (or some other operator in the matrix clause).

2.2. Mood and complement clauses

Let us now consider embedded contexts, which show a clear split in the Romance and English and the Balkan groups. In general, Romance and English finite complements, for example, complements to predicates of cognitive state such as *think* and *believe*, show the indicative mood in the Balkan languages and are introduced by the relevant C. Roughly speaking, finite and indicative complements correspond to what is often called realis mood. Consider next subjunctive complements: in the absence of infinitives, the subjunctive in the Balkan languages has undertaken functions which are typically associated with infinitives. One such example is the case of control predicates, such as *try*, *manage*, and so forth. Similarly, in languages like English, the use of infinitives has extended to constructions that are typically associated with the subjunctive, such as complements to volitional predicates like *want*, *expect*, *hope*, and so forth. The complement to the latter class of predicates is usually characterized as “irrealis”. The same interpretation extends to the complement of control predicates, such as *try*:

- (15) a. *O Janis prospaθise na fiji xθes/*avrio.* MGrk
 the John tried-3SG PRT leave-3SG yesterday/tomorrow
 b. *John tried to leave yesterday/*tomorrow.*

In the Greek example in (15a) the complement is realized as a subjunctive, while in the English (15b) it is an infinitival. Nevertheless the same restrictions hold, namely that the event denoted by the embedded clause is unrealized: the time of leaving is unrealized with respect to that of trying, hence the restrictions on temporal reference indicated in the choice of temporal adverbials.⁵ This captures Iatridou’s (1993) observation that control is possible in those complements that rule out past tense subjunctive, or, in her terms, that lack T. We see that this is a more general property of these predicates (see also Pesetsky 1991). There is, however, another class of control predicates whose complement is not an unrealized event. This is the class of implicatives:

- (16) a. *O Janis katafere na fiji xθes/*avrio.*
 the John managed-3SG PRT leave-3SG yestrday/tomorrow
 b. *John managed to leave yesterday/*tomorrow.*

The usual subjunctive versus infinitive realization attested in (15) holds for (16). However, the complement clause in (16) does not denote an unrealized event: instead, its time reference has to be contemporaneous with that of the matrix predicate. This explains the restrictions in (16) in connection to the adverb *tomorrow*. Where (15) differs from (16) is that the latter, but not the former, asserts that John left. Pesetsky (1991) notes that infinitival complements to implicative verbs have an implicit modal reading: If John managed to leave, it must be the case that he left. The modality in this case corresponds to an epistemic *must*. This could then account for the use of the subjunctive in the Greek

example, which is typically found in complement position to modal predicates. Although a lexical decomposition analysis that derives a modal part might work for implicatives like *manage*, and for volitionals in general, it is not so clear that it works for *try*, which does not seem to contain a modal component (cf. Quer 1998).

Leaving finite complements aside for the time being, we note that infinitival and subjunctive complements cannot be simply characterized as “irrealis”. Farkas (1992a, 1992b) offers an analysis that reformulates the realis/irrealis distinction and captures mood/finite distinctions in complement clauses by means of the lexical properties of the selecting predicates. The first assumption is that sentences (the predicate and its participants) denote situations, that is, individuals. The relation of the participants to the situation is determined by the properties of the predicate. Consider the following example (from Farkas 1992a:80):

- (17) *#John believes/thinks/knows that Mary is sick and/but he believes/thinks/knows that she isn't sick.*

The proposition denoted by the *that* complement in (17) has to be true or false according to John, that is, the matrix subject. This explains the contradiction in (17). Thus, according to Farkas's analysis, propositions are anchored to worlds (a collection of situations), which are in turn anchored to individuals. This is the notion of individual anchoring and is schematically represented in (18):

- (18) $p = T$ in $w_R(J)$

In (18) we see the characterization of a situation with p being true (T) in the actual world (R) as seen by John (the individual anchor). This relation is standardly expressed by finite/indicative mood in the complement. Note that in (17) the individual anchor is the matrix subject and not the speaker (unless the speaker and the subject are the same). Consider volitional predicates next:

- (19) *John wants Mary to leave.*

The predicate *want* introduces a set of worlds (the buletic set): one can have contradicting wishes at the same time; this set of alternatives is anchored to the matrix subject *John*. The situation denoted by the complement clause is true if it holds in some world that is added to the background w_R (the real world). According to Farkas (1992a, 1992b), the complement to these predicates is realized as a subjunctive (or infinitive in English type languages). Thus, the complement to cognitive predicates introduces an independent world (extensional anchoring), while that of volitionals and others introduces a set of worlds (intensional anchoring). This account provides a better formulation of the realis/irrealis distinction (see also Giannakidou 1997 and Quer 1998 for further elaboration).

2.3. Control predicates

Let us now consider the case of (obligatory) control predicates. Apart from world dependency, one more type of semantic dependency is introduced by Farkas

(1992b), namely the Subject (Su) dependency, which is linked to the lexical properties of the selecting predicate. In particular, the assumption is that predicates may impose restrictions on the type of participants (arguments) in the situation denoted by the clause. If one of the arguments is a complement clause, then the matrix predicate may impose restrictions on the referents of the embedded clause. For example, control predicates require that the reference of the subject participant in the complement clause be restricted to that of the matrix subject, hence the coreference effect. It is also possible to find further temporal restrictions (see the examples above). Infinitival complements are prototypically used to express Su dependency. In languages without infinitives, this function is taken over by the subjunctive.

Note that with respect to world dependency, though, predicates like *try* and *manage* do not behave like *want* in the sense that they do not introduce a set of worlds. Quer (1998:49) proposes that this problem is overcome if we assume that the matrix subject “introduces a set of future alternatives right before the point of causation: at a time t_0 the causer acts in such a way that the actual future is in the set of future alternatives where the caused eventuality is realized.” Thus, although these types of predicates lexically imply a set of future worlds, they do not contribute to the context and therefore are evaluated with respect to the real world. In other words, they show mixed properties.

One crucial point about control predicates is that in them, unlike cognitives, the matrix subject is interpreted as the agent (the causer in Quer’s 1998 terms; see also Pesetsky 1991, Lasnik 1992, and Krapova (this volume)⁶). This property sets apart control predicates from the others: their complement clause is evaluated not in terms of reality seen by the matrix subject (cognitives) or in terms of the possible wishes or desires of the matrix subject (volitionals), but simply as being anchored to reality (and also in relation to the speaker), very much like matrix clauses. The agent of the matrix clause then *controls* the eventuality of the embedded clause. Furthermore this property imposes certain restrictions on the embedded predicate. It is well known that control predicates disallow statives:

- (20) a. #*O Janis prospaθise na kseri tin apandisi.*
 the John tried-3SG PRT know-3SG the answer
 ‘#John tried to know the answer.’
- b. #*O Janis epise ti Maria na ine eksipni.*
 the John persuaded-3SG the Mary PRT be-3SG intelligent
 ‘#John persuaded Mary to be intelligent.’

As (20) shows, this restriction holds independently of the infinitive/subjunctive distinction. Intuitively we can account for the infelicitous status of (20) on the basis that one does not volitionally try to bring about states of affairs that already hold, such as being in the state of knowing something or being intelligent. The sentences in (20) can become a bit more acceptable if the stative reading is not present: for instance, Mary is becoming intelligent, or John is getting to know the answer. In this case we have a volitional action assigning to the

unrealized subject of the embedded clause an agentive reading. This restriction does not hold with raising predicates:

- (21) *O Janis fenete na ine eksipnos.*
 the John seem 3SG PRT be 3SG intelligent.
 'John seems to be smart.'

This is expected since raising predicates do not have an agent: they lack an external argument in any case.

The above discussion shows that irrespective of the realization of the complement clause, control predicates impose certain restrictions on the embedded predicate. These are restrictions on the realization and interpretation of its subject (and possibly spatiotemporal): the Su dependency of Farkas (1992b). This points to a structural similarity between infinitives and subjunctives that is not made clear in those analyses that focus on the nature of the empty category involved in the embedded clause.

3. Subjunctive complements and control and raising

3.1. Control and raising revisited

According to the discussion in section 1, there are various accounts as to the empty category involved in control constructions (and raising) in the Balkan languages as well as to its licensing conditions. On the other hand, the discussion in the section immediately preceding clearly shows that the differences between infinitives and subjunctives in the relevant contexts are rather minimal and can be restricted to the absence or presence of agreement, while the semantic properties of the control complements remain the same. Considering agreement, we have to point out that since coreference is obligatory, the agreement that we see on the subjunctive verb cannot be referential. What we need to do next is to see how agreement interacts with control—to the extent that it does.

Manzini and Roussou (1998) provide an alternative analysis to control and raising that dispenses with the postulation of empty categories such as PRO and A traces. Manzini and Savoia (1998) extend this analysis to *pro*, arguing for its elimination. The first basic assumption of Manzini and Roussou (1998) is that thematic roles can reduce to features (cf. also Hornstein 1999), that is, properties that enter the computational system (C_{HL}) and are subject to various syntactic operations. This is implemented as follows: thematic properties are determined by the aspectual properties of the predicate which project the appropriate configuration that licenses them (cf. Borer 1994, Arad 1998, building on assumptions by Tenny 1994). The prototypical agent corresponds to the initiator or originator (Or) of the event, while theme corresponds to the measurer of the event (M). This is a rough approximation, since with some predicates the event is further delimited (Del) (see also Luhde 1998 for some recent discussion of these notions). A discussion of the exact nature of these properties and their relation to the syntax-lexicon interface is beyond the scope of the present paper. For our

purposes it suffices to note that by treating thematic properties as features we allow arguments to be associated with more than one θ role. We furthermore derive the dissociation of thematic and argument positions. Thematic positions are those lexically determined, that is, by the predicate, while argument positions correspond to the D feature, which gives us the \pm definite characterization of the DP as well as its ϕ features. These positions are clearly situated in the inflectional domain.

Based on these assumptions, Manzini and Roussou (1998) argue that DPs are merged directly in the position where they surface, satisfying the strong features of the designated inflectional head. From their argumental (D) position they attract the relevant θ roles:

- (22) a. [_{IP} *John* I [_{VP} *kissed Mary*.]]
 b. [_{IP} *John* [_{VP} V_{θ}]]

In (22) *John* is directly merged in Spec, IP to check the strong D feature of I. From that position it attracts the θ feature; this follows from the idea that arguments need to be interpreted in some way in relation to the predicate (the Theta Criterion). Alternatively, it is the θ role that looks for a DP to be associated with. Manzini and Roussou (1998) argue that some operation Attract forms an ordered pair out of the DP and the thematic or aspectual property of the predicate, for example, (*John*, θ) in (22).⁷ Thus, in principle nothing prevents us from having one argument associated with two θ roles, as is indeed the case in secondary predication. This is similar to cases where C_0 is associated with two (or more) variables, as in multiple interrogatives and parasitic gap constructions. What is excluded is a case where one θ role is associated with two different arguments; this would amount to a representation where one variable is bound by two different operators (cf. the Bijection Principle of Koopman and Sportiche 1982). In short, the configuration in (22) gives us a simple example of raising (A movement) without postulating a DP trace, predicting the lack of reconstruction effects, and so forth (see Manzini and Roussou 1998 for arguments).

Next, consider control: assuming that the infinitival I has no D feature, we predict that the DP is merged directly in the position associated with a D feature, namely the matrix Spec, IP. From that position it attracts the thematic role of the matrix predicate and that of the embedded predicate, giving rise to obligatory coreference (control):

- (23) a. [_{IP} *John* I [_{VP} *tried* [_{IP} *to* [_{VP} *run*.]]]]]
 b. [*John*_D [*tried* _{θ} [*run* _{θ}]]]]

We find something similar in raising contexts, the difference being that the matrix predicate has no thematic property that would be associated with the argumental position in Spec, IP:

- (24) a. [_{IP} *John* I [_{VP} *seems* [_{IP} *to* [_{VP} *run* (fast).]]]]]
 b. [*John*_D [*seems* [*to run* _{θ}]]]]

Control and raising, then, differ minimally: the former is a case of a single DP attracting two thematic features,⁸ while the latter is a case of a single DP attracting a single thematic feature. Further differences of course involve the properties of these two predicates, as discussed in the previous section. As far as the syntax is concerned, the manipulation of thematic features works along similar lines in the two constructions.

Note that the analysis proposed by Manzini and Roussou (1998) crucially assumes that the infinitival I has no D feature, contrary to the analysis of Chomsky (1995), where the presence of a D feature is necessitated by the EPP.⁹ Let us look at the IP domain and consider the lack of the D feature. I will assume that in the articulated IP structure the D (and ϕ) feature(s) of the subject are associated with the subject position, namely AgrSP. As opposed to Chomsky (1995), we take AgrS to have semantic content, on the basis that it is the position that realizes the nominal features of the subject (Roberts and Roussou 1997, 1998). In languages like English, AgrS is spelled out by merging the full DP in the Spec, AgrSP. Going back to the infinitival clauses, we notice that the subject position in control and raising complements is not realized, despite the fact that subjects are otherwise always present in English. The simplest solution is to assume that AgrS does not project in this case; this is an alternative way of interpreting the lack of a D feature. Note that this analysis is also consistent with Iatridou's (1993) claim according to which I in control complements does not assign nominative Case, ruling out the possibility of having an overtly realized subject. In the framework of Manzini and Roussou (1998), Case and D positions are not distinguished: there are no Case positions seen independently of argumental (DP) ones. This correlation is captured straightforwardly, as the result of the absence of a D feature or AgrS.

Consider next how this property interacts with the C domain. In section 2 we discussed the notion of finiteness as a property of C that relates to the inflectional domain. Looking at the properties of complement clauses realized as subjunctives and infinitives in Balkan and in Romance and English respectively, we noted that they have properties typical of –finite contexts. In particular, the temporal reference, mood, and subject of the complement clause are restricted by the selecting predicate, giving rise to the formation of a subject and/or world dependency in the sense of Farkas (1992b). Complement clauses to control predicates do not have any T specification (cf. Iatridou 1993), being subject to various modal readings as determined by the properties of the matrix predicate. To the extent that this is correct, we could say that the embedded C lacks a finite position, that is there is no Fin head present, although the higher C head (“force,” in Rizzi's 1997 terms) may still be present, assigning a CP status to the complement clause:

(25) V [_{CP} C [_{IP} I]]

If this is the right line of reasoning, the temporal argument of the embedded predicate cannot be bound in its own CP domain; instead, it is directly linked to the matrix predicate which in turn restricts its interpretation, giving rise to the appropriate reading (contemporaneous or posterior). A similar assumption can

extend to raising predicates, although in this case we have no modal reading. However, it is possible to assume that raising predicates as such lack a temporal argument. So the matrix *Fin* position binds the only available one: that provided by the complement clause. In general, then, control and raising complements are characterized by a reduced CP structure, namely one that lacks the lower C position (*Fin*).

What follows from the preceding discussion is that control and raising complements have a reduced structure at both the CP and the IP level: they lack *Fin* and *AgrS* (with the possibility of T being absent as well—we leave this open). With respect to control complements, the absence of *AgrS* translates the semantic *Su* dependency of Farkas (1992b) in syntactic terms. We see, then, that the lack of *Fin* correlates with the lack of *AgrS*, capturing once more the idea that lack of T specification implies absence of nominative, as argued by Iatridou (1993). Note also that an analysis that takes control complements to be reduced clauses derives the notion of clause union in a straightforward way while linking it to the properties of the selecting predicate as well. In other words, reduced complements give us the notion of “restructuring” without postulating T raising, as in Kayne (1989) and Roberts (1997). To be more precise, the absence of *Fin* and *AgrS* in the embedded context leaves us with a single *Fin* and *AgrS*, that is, the matrix ones. The interpretation of T and the thematic properties of the embedded predicate are now derived on the basis of these two matrix functional categories. The association of the embedded thematic property with the matrix *AgrS* gives rise to control, while the association of the temporal argument with the matrix *Fin* derives the notion of T raising. We can go one step further and argue that the notion of clause union in this case follows from the EPP. Assuming that the EPP is a clausal requirement, as argued by Roberts and Roussou (1998), the lack of *Fin* and *AgrS* in the embedded clause forces the association of the embedded temporal argument and the subject θ role with the matrix *Fin* and *AgrS*, respectively, hence once again the notion of clause union. As we will see below, the realization of an embedded *Fin* creates a separate clausal domain and forces the projection of *AgrS* as well.

Bearing these assumptions in mind, let us now turn to control in languages of the Balkan type that do not have infinitives.

3.2. Control and raising and agreement

So far we have argued that control (and raising) complements have certain properties that hold independently of the subjunctive versus infinitival divide. We furthermore argued that these semantic properties correspond to reduced clausal complements, namely clauses that lack *Fin* and *AgrS*. We expect this to be the case in the Balkan languages as well. We then need to account for the presence of agreement in the embedded clause. Consider the following Greek example:

- (26) a. *O Janis prospaθise na ðoulepsi.*
 the John tried-3SG PRT work-3SG
 ‘John tried to work’

b. [[_{DP} *o Janis*]_{prospathise_θ}] [_{na} *ðoulepsi_{θ2}*]]

The representation in (26b) is similar to that in (23b): the DP *o Janis* attracts two θ roles, giving rise to obligatory coreference (control). However, (26b) differs from (23b): in the former, but not in the latter, the embedded predicate is inflected for agreement. The same holds for the other Balkan languages as well, which show agreement and are also *pro*-drop languages. It is precisely this pattern that led researchers to the idea that the empty category involved is *pro*.

The status of *pro*, however, has been questioned in the literature. For example, Borer (1986) argues that there is no independent motivation for postulating an expletive *pro* other than theory internal reasons, namely the EPP as the requirement for a structural subject, since Case and the thematic properties are carried by the postverbal subject, which is coindexed with I (the I subject) (see also Alexiadou and Anagnostopoulou 1998 and Nash and Rouveret 1996 for eliminating expletive *pro*). The elimination of referential *pro*, however, turns out to be more problematic. Manzini and Savoia (1998), building on the analysis of Manzini and Roussou (1998) for PRO, argue that *pro* corresponds to an unrealized subject position. *Pro*-drop, then, is the lack of an overt realization of the nominal features of the subject, that is, AgrS. Consider the Greek example in (27):

- (27) a. *ðiavase tin efimeriða.*
 read-3SG the newspaper
 'He read the newspaper.'
- b. (*O Janis*) *ðiavase (o Janis) tin efimeriða (o Janis)*
 (the John) read-3SG (the John) the newspaper (the John)
 'John read the newspaper.'

In (27a) we see a typical example of a null subject sentence. Note also that the verb is inflected for third person singular, which is morphologically realized in the form of the suffix *e*. Rizzi (1986) argues that agreement in *pro*-drop languages is referential. The presence of "sufficient" agreement both licenses and identifies *pro*. In terms of the analysis proposed above, this translates as follows: AgrS, and in particular the D feature of AgrS, remains unrealized. The interpretable ϕ features of the subject, on the other hand, are morphologically realized on the predicate. Following Tsimpli (1997), I will assume that "rich" agreement on the verb resumes the ϕ features of the subject. The presence of agreement on V then allows for recoverability of the content of the empty subject (third person singular in (27)), while the AgrS head remains unrealized (silent). It is also well known that in *pro*-drop languages, when the subject is present, it is free to occur in different positions in the clause structure, such as topic or focus (see Philippaki-Warburton 1987, Tsimpli 1995, Cardinaletti 1994, Alexiadou and Anagnostopoulou 1997, and Manzini and Savoia 1998, among others, for different formulations of this idea), as shown in (27b). If this is correct, then even when there is an overt subject, AgrS is syntactically present but receives no realization.

Let us now go back to the control example in (26): according to what we have said so far, the matrix clause has an AgrS position, while the embedded clause does not. Moreover, the overt subject that we see in (26) does not realize the subject position, that is, Spec, AgrSP, but is instead a topic. The structure of (26) is schematically represented in (28):

- (28) [_{TopicP} *o Janis* [_{AgrSP} AgrSD/ ϕ [_{IP} *prospathise* [_{VP} V θ_1 [_{CP} C [_{IP} *na dulepsi* θ_2]]]]]]

IP is used as a cover term for the rest of the functional projections in the clause; C indicates the higher C position, but not C_{Fin}, which according to our discussion is missing, along with AgrS. In (28) the AgrS, which relates to the DP *o Janis* under topicalization, attracts both θ_1 and θ_2 . Both verbs are inflected for third person singular, deriving an agreement effect between the two clauses. If the ϕ features on the verb are an instance of resumption, then the problem of agreement in the embedded clause is resolved: exactly as in (27) the agreement that we see on both verbs does not correspond to the realization (spell out) of an AgrS position. So our analysis concerning the absence of an embedded AgrS still holds. What we have in (28) instead is an instance of “doubling”: the agreement features on the embedded predicate double those of the matrix one. This is similar to the doubling effect found when a subject clitic pronoun is used in the various Northern Italian dialects, as the following Fiorentino example shows (see also Brandi and Cordin 1989):

- (29) *(*La*) *viene*
 she come-3SG
 ‘She comes.’

Manzini and Savoia (1998) argue that the subject clitic realizes an inflectional position, which they call I_{CL}. We take I_{CL} to correspond to AgrS. The example in (29) shows agreement between the subject clitic and the verb. In this case it is the agreement features of V that double those of the clitic. Manzini and Savoia argue that agreement in this case involves matching two sets of ϕ features: those of the clitic and those of V. Technically, the derivation is as follows: the thematic feature on its way to AgrS moves to I, attracted by some feature in I; from there it picks up the ϕ features of V and carries them along to AgrS as free riders, triggering the above agreement effect:

- (30) [_{AgrSP} θ *la* [_{IP} θ *viene* [_{VP} V θ]]]

The same derivation holds for null subject languages, as in (27a) above, although AgrS is not overtly realized. In this case agreement surfaces on the verb only. Agreement effects, then, are the morphological reflex of movement of thematic features.

We could argue for a similar approach to the control example in (28). In particular, in (28) the embedded I attracts the thematic role associated with the verb *dulepsi*. In the absence of an AgrS position in the embedded clause, the thematic feature moves to the matrix AgrS position, taking the ϕ features of I (V) along. The same operation takes place in the matrix clause: the thematic

feature of the matrix predicate first moves to I and from there to AgrS, taking along the ϕ features of matrix I as free riders:

- (31) [_{AgrSP} θ_2 θ_1 AgrS [_{IP} θ_1 I [_{VP} V θ_1 [_{CP} C [_{IP} θ_2 I [_{VP} V θ_2]]]]]]]

This derivation then ensures that the ϕ features of the embedded predicate and those of the matrix predicate match. In Manzini and Roussous's (1998) terms the agreement pattern that we get between the matrix and the embedded predicate is the morphological reflex of Attract that relates AgrS and the two predicates, V₁ and V₂. What is crucial is that we maintain the idea of lacking a subject position, AgrS, in the embedded clause.¹⁰ In any case the presence of agreement on the predicate does not indicate the realization of AgrS. In the matrix clause we have agreement on V as well as a "silent" AgrS position. Notice that it is possible to have an unrealized subject in both clauses; however, the important point is that the matrix clause has an AgrS (albeit unrealized), while the embedded clause simply lacks this position. We thus derive the dissociation of agreement features from the realization of AgrS. In this approach we analyze control in subjunctive and infinitival contexts alike. This allows us to capture the common semantic and syntactic properties of control in these two cases. The differences, that is, presence versus absence of agreement features, are attributed to the different morphological properties of the relevant languages.

It is worth pointing out that subjunctive complements in control contexts are not like inflected infinitivals of the type found in European Portuguese. As has been discussed in the literature, inflected infinitivals may occur as complements to factive and epistemic predicates but not to volitionals or control predicates (Raposo 1987:87-88):

- (32) a. *Eu pensolafirmo terem os deputados trabalhado pouco.*
 I think/claim to have-AGR the deputies worked little
 'I think/claim the deputies have worked little.'
 b. **Eu desejava terem os deputados trabalhado mais.*
 I wished to have-AGR the deputies worked more.
 'I wish the deputies had worked more.'

As (32) shows, inflected infinitivals do not occur in the typical contexts of the Balkan subjunctive. The restriction on the distribution of inflected infinitivals as well as the possibility of having an overt subject shows that these are not reduced CPs: they have an AgrS and possibly a C_{FIN} position. In fact, Raposo (1987) argues that infinitival complements to epistemic or factive predicates, as in (32a), have a tense operator in C, while infinitival complements to volitional predicates lack this T operator, hence the impossibility of an inflected infinitive, as (32b) shows. We will not get into any further discussion of inflected infinitivals, since the whole issue is quite complex and beyond the scope of the present paper. The important point is that subjunctive complements in control and raising contexts cannot be treated simply as inflected infinitives.

Before we leave this section, let us consider the following Greek example with raising:

- (33) *Ta peđja fenonde na đulevun.*
 the childern seem-3PL PRT work-3PL
 'The children seem to be working.'

Given the preceding discussion, the derivation of (33) is equivalent to that suggested for raising in English, as in (24): the matrix clause has an AgrS position that attracts the thematic role associated with the embedded predicate. The DP *ta peđja* in (33) is in topic position. In this respect our analysis agrees with that of Philippaki-Warbuton (1987). However, there is no need to assume that, unlike English, there is no raising in Greek, if by raising we mean the Attraction of a thematic position by an argumental (DP) one. With raising predicates like *seem* Attract involves a clause boundary. Agreement between the matrix and the embedded predicate is once again the morphological reflex of this operation.¹¹ Raising out of subjunctive complements is then predicted to be possible.

Having considered the presence of agreement in control and raising subjunctive complements of the Balkan type, let us now consider the role of a lexical C and its blocking effects for control and raising.

3.3. Lexical C and obviation

As has been pointed out in the literature (Terzi 1992, Turano 1994, among others), control in the Balkan languages is incompatible with an overt subjunctive complementizer (examples from Dobrovie-Sorin (this volume)):

- (34) a. *Ion a încercat sã -l* Rom
 John have-3SG try-PART PRT him-CL.ACC
pedepseascã pe Mihai.
 punish-3SG.SUBJ pe Mihai
 'John tried to punish Mihai.'
- b. **Ion a încercat ca pe Mihai sã pedepseascã.*
 John tried-3SG that pe Mihai PRT punish-3SG

Recall that according to Terzi's (1992) generalization a lexically filled C qualifies as a proper governor, excluding PRO. For Watanabe (1993) this generalization is based on the idea that null Case does not require a lexically filled C.

Volitional predicates show a slightly different pattern, in that they do allow for a subjunctive C; however, an overt C gives rise to an obviation effect (disjoint reference). This is illustrated with the following Albanian and Romanian data (Terzi 1992, Motapanyane 1994):

- (35) a. *Jani do (që) të hajë.* Alb
 John want-3SG that PRT eat-3SG
- b. *Ion vrea (ca) sã mănince.* Rom
 John want-3SG that PRT eat-3SG

- c. *O Janis θeli na fai.* MGrk
 the John want-3SG PRT eat-3SG
 'John wants (him/her) to eat'

In (35a) and (35b), coreference is excluded when the Cs *që* and *ca* are present. Greek only exhibits the C-less option since it does not have a subjunctive C (cf. (35c)). Note that when the subjunctive C is absent, coreference is possible, but not necessary (see section 1, and in particular (12), for a discussion of Terzi's (1992) analysis of obviation). In that respect volitional predicates differ from obligatory control predicates. The latter, moreover, rule out the possibility of having an overt C, as shown in (34), and therefore disjoint reference cannot be triggered. The same blocking effects with an overt C are found in raising as well in Rivero 1989, attributed to Grosu and Horvath 1984):

- (36) a. *S-a nimerit ca toți baieții să fie bolnavi.* Rom
 It-has happened that all boys the PRT be sick.
 'It has happened that all the boys are sick.'
- b. *Toți baieții s-au nimerit să fie bolnavi.*
 all boys.the Refl-have happened PRT be sick
 'All the boys happened to be sick.'

As (36a) shows, the subjunctive C *ca* blocks raising, while absence of *ca*, in (36b), allows for it. As opposed to control predicates, an overt C is actually possible. In these two examples, (36a) corresponds to a raising construction with a *that* clause, while (36b) corresponds to raising with an infinitival complement (see also note 5 for the Greek data). One possible explanation is that when raising takes place the complement clause is an IP, so (36a) with a full CP structure is incompatible with raising (Kempchinsky 1987). Even if this is correct for raising, we still need to account for the control and disjoint reference cases.

Dobrovic-Sorin (this volume) attributes the possibility of coreference and raising to the special status of the subjunctive particles, which according to her analysis merge (incorporation) with the verb, which carries Agr; the particle cannot then qualify as a governor since it contains the possible antecedent of the null subject (Agr), so the next available governor is the matrix verb. This process extends the governing category to the matrix clause. An overt C, on the other hand, is a governor and does not merge with the verb; thus it restricts the governing category in the embedded clause. This analysis locates the problem to the presence of subjunctive particles, which crucially distinguish Balkan subjunctives from their Romance counterparts. However, it still retains the idea of a governor and a governing category and consequently all the problems associated with government (Chomsky 1995). Moreover, it is not so clear how we can account for the data in (35) where coreference is possible but not obligatory when C is null.

The pattern found in the Balkan subjunctives with an overt C is also attested in English when the prepositional *for* is used (cf. the *for* to filter of Chomsky and Lasnik 1977):

- (37) a. *I tried (*for) to go.*
 b. **I tried for John to go.*
 c. *I prefer (*for) to go.*
 d. *I prefer for John to go.*

As (37a) and (37b), show *for* is incompatible with control predicates in the same way that *ca* and *që* are.¹² With volitionals, on the other hand, *for* is possible but it forces disjoint reference, exactly like *ca* and *që* in Romanian and Albanian, respectively. Finally, we find the same blocking effects with the Romance subjunctive, which is also introduced by an overt C:

- (38) a. **Je veux que je parte.* Fre
 I want-1SG that I leave-1SG
 'I want to leave.'
 b. **Il veut qu'il parte.*
 he want-3SG that he leave-3SG
 'He wants to leave.'

Construction (38b) is possible only under the reading where *il* in the embedded clause is not coreferential with the matrix subject *il*. Coreference is only possible with an infinitive (on the parallelism between *for* to infinitives and Romance subjunctives, see Kempchinsky 1986). Notice that, in languages like Italian and French, control (but not raising) does allow for an overt C like element, namely *di* and *de*, respectively (Rizzi 1982, Kayne 1984):

- (39) a. *Jean a essayé/décidé de partir.* Fre
 John tried/decided-3SG to leave
 b. *Gianni ha tentato/deciso di partire.* Ita
 John tried/decided-3SG to leave
 'John tried/decided to leave.'

As Kayne (1984) pointed out, *de* and *di* have a different status from *for*. In his analysis, *for* is a proper governor and therefore incompatible with PRO, while *de* and *di* are not, for which reason they are compatible with PRO. We will come back to this point shortly. Overall, the various alternations with an overt C have led to the idea that the obviation problem strongly relates to the lexical C.

Farkas (1992b), on the other hand, argues that in the Romance languages it is the availability of two different types of complement clauses, namely infinitives and subjunctives, that gives rise to obviation effects. In particular, infinitives are used to mark the Su dependency; therefore this is the complement that should be used in coreference. The subjunctive, on the other hand, is used to mark the world dependency and cannot be used in contexts that trigger coreference with the matrix subject. She captures this under the following generalization:

- (40) In world dependent complements that conform to the canonical control case, the form used to mark Su dependency blocks the form used for world dependency.

The above generalization (40) operates in the lexicon and should be seen as following from the Elsewhere Principle. In the Balkan languages (40) does not operate because in this case the form used to mark world dependency is the same as that marking Su dependency, namely the subjunctive. It is for this reason, then, that we do not get obviation effects with the Balkan subjunctives. In Farkas's terms, the answer to the obviation problem is semantic interacting with lexical restrictions in terms of complement selection. Although this description of the facts seems to be correct, it leaves out the role an overt C plays in obviation in languages like Albanian and Romanian (cf. (35)).

Let us now see how we could account for the above observations in terms of the analysis proposed so far. The contrast between obligatory control and volitional predicates is clear, since the latter do allow for an overt C. Recall that we analyzed control and raising complements as reduced clauses in the sense that they lack C_{Fin} and AgrS. We also showed that the absence of these two projections is not accidental but follows from the semantic properties of the matrix predicates as well as from the interaction of C_{Fin} and AgrS. We also argued that, assuming an articulated CP structure, control and raising complements can still be assigned a CP status, albeit with C_{Fin} missing. Going back to the data in (34)–(36) and the blocking effects of the lexical Cs in Romanian and Albanian, I would like to propose that when *ca* and *që* are present they lexicalize C_{Fin} . The impossibility of having control with an overt C now follows: lexicalization of C_{Fin} is not possible, simply because it is not selected in the first place. The possibility of having an overt C with volitionals shows that these predicates do select for a full CP structure. This structural difference between obligatory control and volitional predicates is expected given their different semantic properties as well. Note, though, that French and Italian do allow for an overt C with control predicates, as shown in (39). Dispensing with the notion of proper government and assuming an articulated C structure, we can say that while *for* realizes the lower C position (Fin), like *ca* and *që* in Romanian and Albanian, respectively, *de* and *di* realise a higher C position and for that reason they are compatible with control. We leave open their incompatibility with raising predicates—I will tentatively assume that this is attributed to selectional properties of the matrix predicate. With the exception of *de* and *di*, then, all the other complementizers discussed so far lexicalize C_{Fin} . Consider raising predicates next, which allow for an overt C. The crucial difference is that raising predicates do not give rise to a Su dependency for the simple reason that these predicates do not have an external argument that would control the embedded eventuality in any case. Thus, an overt C is possible.

Let us now go back to volitionals and consider the C-less subjunctive complements in (35) above. In these examples the embedded subject seems to behave like a pronominal: it may or may not be coreferential with the matrix subject (see also Krapova (this volume) for Bulgarian). If this is correct, then the embedded clause, unlike obligatory control complements, has an AgrS projection. Given that these languages are *pro*-drop, AgrS remains unrealized. As usual an overt subject is possible, albeit in a topic or focus position:

- (41) *O Janis* *theli* *(i MARIA)* *na fiji* *(i Maria)*. MGrk
 the John want-3SG (the Mary) PRT leave-3SG (the Mary)
 'John wants Mary to leave.'

Earlier on in our discussion we argued that the presence of AgrS seems to be contingent on the presence of C_{Fin} for reasons that have to do with the interpretation of the predicate. If there is evidence that AgrS is present in (41), then according to our discussion, there must be a C_{Fin} position present as well. Indeed, the possibility of having an overt C in Romanian and Albanian provides evidence in favor of this analysis. Given the intensional properties of the predicates in question, I will assume that C_{Fin} is occupied by a modal operator. Kempchinsky (1986) argues that complements to volitionals are embedded imperatives and are characterized by the presence of a subjunctive operator in CP. Roughly speaking, this operator has the properties of a modal "will", hence the future interpretation assigned to these predicates. If our line of reasoning is correct, then subjunctive complements to volitionals have both AgrS and the lower C (Fin) position.

Having established the structural properties of complements to volitionals, we are now in a position to consider why a null (lower) C allows for coreference, while an overt one forces disjoint reference, or, to put it differently, why an overt C blocks coreference. It is worth noting that this phenomenon is reminiscent of the *that*-t effect in languages like English, where an overt C blocks subject extraction while a null C does not. This is illustrated in (42) below:

- (42) *Who do you think *(that) left?*

In standard terms the ungrammatical version of (42) is accounted for as an ECP violation (government) (cf. Kayne 1984, Chomsky 1986, Rizzi 1990). Intuitively, *that* blocks the formation of a dependency between the *wh*-phrase in matrix Spec, CP and the subject position, which provides the variable in the complement clause. Roussou (1998) argues that a null C allows for raising of the I features to C, licensing AgrS as a pronominal as in the case of *pro*-drop' under V2; the pronominal AgrS is bound by the *wh*-operator and has the properties of a resumptive pronoun. An overt C blocks this raising, and as a result AgrS cannot be licensed as a pronominal, leaving the matrix *wh*-operator without a variable to bind. Although (42) and the subjunctive clauses differ, they both share a configuration between C and the subject position. Moreover, in both cases the absence of an overtly realized C is crucial for the formation of a dependency between an operator and its variable for *wh*-subject extraction, and between the two subject positions in the subjunctive complements.

Note that obviation in the overt C configuration is a subject to subject relation: while coreference is excluded with the matrix subject, it is possible with the matrix object. Farkas (1992b:105) illustrates this with the following French example:

- (43) a. *?Marie a convaincu Pauli qui'il s'en aille.*
 Mary has convinced Paul that he leave-SUBJ

- b. *Marie a convaincu Paul de s'en aller.*
 Mary has convinced Paul C leave-INF
 'Mary convinced Paul to leave.'

When the infinitival complement is used we get control of the embedded clause by the matrix object (cf. (43b)). When the subjunctive is used coreference with the matrix object is possible, although marginal. In any case, the grammaticality status of (43a) is more acceptable compared to that of (38). The subject orientation of obviation with an overt C is not typical of control but is instead reminiscent of long distance anaphora (cf. Pica 1987, Koster and Reuland 1991). Suppose then that the coreference effect with subjunctive complements is simply the result of associating two AgrS positions. Suppose also that when C is null it triggers I raising, which takes the features of AgrS along as free riders. From that position the ϕ features of the embedded subject are free to be associated (Attract) with those of the matrix subject: if they match, coreference is triggered (the anaphoric reading); if they do not, we get disjoint reference (the pronominal reading), as shown with the Greek example in (44):

- (44) *Θelo na fiyo/ fijs.* MGrk
 want-1SG PRT leave-1SG/leave-2SG
 'I want to leave/ I want you to leave.'

In third person singular, either reading is possible, as illustrated in (35); this is the pattern we find with long distance reflexives, which are underspecified for anaphoric and pronominal features. Crucially, coreference with volitionals in the Balkan C-less subjunctives is not the result of control as defined in the present paper: control predicates have a reduced clause structure, volitional predicates do not. However, the intensional properties of volitionals still allow for the formation of a dependency between the matrix clause and the embedded that resembles clause union (we leave aside the details of how this is implemented). It is this configuration that allows for feature raising, triggering coreference.

Consider next the effects of an overt C: as I have said already, an overt C lexicalizes the operator in the lower C position. Intuitively, the presence of an overt C gives the complement the flavor of a distinct and separate clause. Coreference is excluded for the simple reason that an overt (nonaffixal) C blocks movement. If I movement is blocked, the ϕ features of AgrS cannot move either, and they cannot be associated with the matrix clause. The lexical C then becomes an obviator, giving rise to disjoint reference. The same explanation extends to the French subjunctives in (38) above. The important difference between the Balkan languages and French (and the other Romance languages) is that the former can have a null C, while the latter cannot. The only way to derive coreference, then, is to use the infinitival form.¹³ A similar account extends to the use of *for* in English infinitivals (with the possibility of having a null *for* with *want* predicates; cf. Kayne 1984). Note that when *for* is used the subject must be overtly realized, since English is not a *pro*-drop language. However, the subject in this case is marked with accusative and not nominative:

- (45) *I prefer for him/*he to go.*

Roberts (1996) argues that the accusative that we see on the embedded subject is due to the absence of agreement, given that the embedded clause is an infinitival. Thus, there is no need to analyze *for* as a (dummy) Case assigner under a government configuration. Instead, *for* is given semantic content as the element that lexically realizes the modal operator in C.

To summarize, in this section we considered control and raising in the Balkan languages. We argued that the underlying properties of the complements to these predicates are the same despite their different realizations as subjunctives or infinitives: they both lack an AgrS and a Fin position, forming a single clause with the matrix predicate. The presence of agreement in the Balkan subjunctive was analyzed in terms of a “doubling” effect: agreement features on the predicate are the morphological reflex of movement of θ features. Complements to volitionals, on the other hand, have a full CP structure. The overt C blocks the association of the embedded AgrS with the matrix one, ruling out coreference.

4. Conclusions

The purpose of this paper is twofold: first, to provide an account of the notion of finiteness and its different manifestations in Romance and English and in the Balkan languages, and second, to provide an analysis of control and raising in subjunctive complements. Regarding the first point, it was argued that finiteness is a property of the C system that interacts with mood, tense, and AgrS. Based on the semantic properties of control predicates, I argue that their complements are reduced clauses, lacking AgrS and C_{Fin}. As a result, the temporal properties of the embedded predicate are solely determined by the matrix one, and its subject θ role also becomes associated with the matrix subject position. A similar account extends to raising, bearing in mind the differences between the two types of predicates. In the final section I considered the role of C in more detail. It was argued that an overt C lexicalizes C_{Fin} and for that reason is incompatible with control. Volitionals, on the other hand, do not select for reduced complements. A null C in this case allows for the free association of the embedded AgrS with the matrix subject, yielding coreference. An overt C blocks this association and triggers disjoint reference.

Notes

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1. The pattern in (9) holds in English as well in those limited uses of the subjunctive that require *that*. However, *that* in this context is not subject to deletion:

- (i) *John suggested *(that) Peter be here tomorrow.*
- (ii) **Who did John suggest (that) be here tomorrow?*

This might indicate that the indicative and the subjunctive *that* are homophonous, albeit different elements (Ian Roberts, personal communication). Note, though, that *that* deletion is not possible in other contexts, such as subject clauses:

(iii) *(*That*) *John passed his exams surprised me.*

2. Inflected infinitivals in European Portuguese, however, provide a counterexample to an analysis that associates finiteness with agreement (cf. Raposo 1987).

3. Kempchinsky (1987) also relates the presence of PRO in subjunctive complements in Romanian to the realization of C. See also Krapova (this volume) for Bulgarian.

4. Tsoulas (1995) argues that the \pm finite distinction corresponds to a \pm definite characterization of clauses. In particular, finite propositions are temporally definite, referring to temporally specified points, while $-$ finite ones are indefinite, that is, they refer to unspecified temporal points. Clausal (in)definiteness can be realized either on C or on I (see the point about V2 in the text). If C is $-$ definite ($-$ finite), that gives rise to inflected infinitives of the Balkan type with special Cs (what we see as the subjunctive). If it is realized on I, then we see some special morphology, either bound, as in Romance, or not, as with the English *to*. See Giorgi and Pianesi (1997) and (Quer 1998) for further discussion.

5. Note that the subjunctive V in (15) (and (16)) is inflected for perfective aspect. Imperfective aspect is not possible in this context unless the matrix verb itself is imperfective:

- (i) **O Janis prospaβise na fevji.*
the John tried-3SG PRT leave-IMP.3SG
- (ii) **O Janis katafere na fevji.*
the John managed-3SG PRT leave-IMP.3SG
- (iii) *O Janis prospaβi na fevji/fiji.*
the John try-IMP.3SG PRT leave-IMP 3SG/PERF 3SG
'John tries to leave (whenever possible).'
- (iv) *O Janis kataferni na fevji.*
the John manage-IMP.3SG PRT leave-IMP.3SG
'John manages to leave (whenever possible).'

It is also interesting to note that while the imperfective form *fevji* corresponds to the present tense as well, the perfective *fiji* is never attested in isolation but always requires the support of a particle like *na* or *tha* (the future marker). The English infinitive that corresponds to the above Greek subjunctives does not inflect for aspect. Exactly how grammatical aspect interacts with finiteness is left open at this point (but see Joseph 1983 for the discussion of infinitives in Classical Greek and the interaction between tense and aspect).

6. Pesetsky (1991) also observes that control is in complementary distribution with exceptional Case marking (ECM). In the latter case the matrix subject cannot be an agent. Infinitival complements to factive predicates are more problematic because the matrix subject is not an agent:

- (i) *John hated to ride in the back seat (*yesterday).*

However, as Pesetsky notes, they disallow a punctual reading, hence the ungrammaticality of (i) with the temporal adverb *yesterday* present. The same restriction holds in Greek when these predicates select a subjunctive clause: the matrix verb can be in the past provided it is not inflected for perfective aspect. I leave this issue open here. For further discussion see Pesetsky (1991).

7. Sportiche (1997) argues for a similar approach, according to which the D head is generated higher up in the clause, and only the NP part of the DP is generated within the VP shell, the domain where thematic properties are assigned. The NP part further moves and attaches to the DP, giving rise to the DP constituent. (These D positions correspond to the "clitic phrases" of Sportiche 1994.) This approach predicts that A movement might give rise to reconstruction effects in some cases. A discussion of this issue, however, is beyond the scope of the present paper.

8. Recall that in control the agent or initiator in the matrix clause controls the eventuality denoted by the embedded predicate as well as one of the participants in the embedded situation. This imposes certain restrictions on the type of predicate that we find in the embedded clause, namely, both the matrix and the embedded thematic subjects must be interpreted agentively. If control is the result of Attraction of two θ roles by a single DP, we find the same requirement as we find in parasitic gap constructions as far as the identity of the gaps is concerned:

- (i) a. *John tried to run* = *John* θ 1 θ 2
 b. *Which book did you file t without reading e?*

In control, the requirement is that the two thematic roles are nondistinct (agentive readings), while in parasitic gaps both gaps must be nondistinct in terms of D and ϕ features. For example in (ib) both *t* and *e* resume two gaps of the same phrase, namely, *which book*. In raising constructions we do not have this requirement, for the simple reason that the matrix predicate has no thematic property to assign to the DP subject: the only θ role is that provided by the embedded predicate.

9. Kayne (1997) argues that control involves a "doubling" configuration with subsequent movement of the DP associate to the matrix position, stranding PRO:

- (i) *tried* [[*John PRO*] *to go*]
 (ii) *John tried* [[*John PRO*] *to go*]

PRO in (i)–(ii) has a status equivalent to that of a clitic in clitic doubling constructions.

10. Another instance of an impoverished clause is found with participials that also show agreement, as illustrated by the following Italian example:

- (i) *Maria è partita.*
 Mary is left-3SG.FEM
 'Mary has left.'

In (i) there is agreement between the DP *Maria* and the past participle *partita*. If participles are also CPs (cf. Kayne 1993, Savoia and Manzini (in press)), then they are also characterized by the lack of a D (subject) position, resembling control complements to some extent.

11. Construction (33) may show no agreement between the matrix and the embedded clause:

- (i) (*Ta peđja*) *fenete na đouleouvou (ta peđja)*
 the children seem-3SG PRT work-3PL (the children)
 'It seems that the children are working.'

In English the lack of agreement is attested with a *that* clause instead of an infinitive, implying that raising has not taken place. Something similar could be argued for (i) as well, the only difference being that the complement clause is a subjunctive in both (33) and (i): the embedded θ feature is not Attracted by AgrS in the matrix clause; thus, there is no long distance agreement in this case. One of the implications is that the embedded clause must have a D position in (i). Note that there is a difference in

interpretation between (33) and (i): in the latter case the embedded clause can bear past tense subjunctive:

- (ii) *Fenete na đulepsan.*
 seem-3SG PRT worked-3PL
 'It seems that they have worked.'
- (iii)**Fenonde na đulepsan.*
 seem-3PL PRT worked-3PL

As (iii) shows, if there is long distance agreement, the *na*-clause cannot be in the past tense. If this happens, then the embedded clause must have an argument position for the subject, presumably as the result of the EPP.

12. Note that there are dialects of English, such as Belfast English that allow for the *for to* construction with obligatory control (Henry 1995). However, it is reasonable to assume that in these dialects *for* occurs in a lower position, perhaps being the equivalent of the Balkan subjunctive particles.

13. As has been pointed out in the literature, coreference is possible in this context if a modal is used in the embedded clause, or the embedded subject is stressed, or one of the subjects is passivized, or the matrix verb is in the conditional form (Ruwet 1984, Farkas 1992b, among others). This is illustrated with a French example (from Farkas 1992b) and a Romanian one (from Dobrovie-Sorin (this volume)):

- (i) *Je veux que je puisse partir.* Fre
 I want that I can-SUBJ leave
 'I want to be able to leave.'
- (ii) *Aş vrea ca mâine să plec la munte.* Rom
 would like that tomorrow PRT leave the mountains.
 'I would like to leave for the mountains tomorrow.'

The presence of additional material makes the selectional relationship between the matrix predicate and C looser. As Dobrovie-Sorin (this volume) points out, in this case we are dealing with two distinct events and coreference is of the usual accidental type, exactly as in indicative complements.

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Subjunctives in Bulgarian and Modern Greek

Iliyana Krapova

1. Introduction

Alongwith other common properties, Bulgarian (Blg) and Modern Greek (MGrk) exhibit strikingly similar patterns of subjunctive¹ complementation, in terms of both structure and interpretation. Unlike the rest of the Balkan languages which possess special subjunctive morphology and/or subjunctive complementizers,² Blg and MGrk have finite complements with null complementizers that may function either as subjunctives, or as infinitives, depending on the lexical properties of the matrix verb. Thus, complements of, for example, volitionals, as in (1a) below from MGrk, typically correspond to a Romance-type subjunctive (cf. (1b) from French), while complements of, for example, aspectuals and control verbs, as in (2a), typically correspond to an English or Romance-type infinitive (cf. (2b)):

- (1) a. *Θelo na erθo/erθi.*³
 want-1SG na come-1SG/come-3SG
 'I want to come./I want her/him to come.'
- b. *Je veux que *je/il parti.*
- (2) a. *O Janis prospaθise na katalavi.*
 the Janis tried-3SG na understand-3SG
 'Janis tried to understand.'
- b. *Jean essaie de PRO comprendre.*

The only "mark" for the subjunctive in MGrk is the verbal particle *na*, which according to a widely held view in current MGrk studies does not exhibit complementizer properties (Phillipaki-Warburton 1987; Rivero 1987, 1994; Terzi 1991, 1992, among others). The embedded verb is characterized by tense restrictions (to be discussed in greater detail below) but is otherwise fully inflected for person and number agreement. As far as the referential properties of the embedded subject are concerned, (1a) and (2a) present a curious asymmetry in

terms of binding relations. Complements of, for example, volitionals in MGrk (and Blg, as we shall see) allow but do not require their (null) subjunctive subject to be coreferent with the matrix subject, thus voiding the familiar obviation effect characteristic of Romance subjunctive clauses (1b). On the other hand, verbs like *try* select a control complement in which the (null) embedded subject is strictly anaphoric and may be interpreted only through a local antecedent in the matrix clause.⁴

This contrast in referential behavior, which is reminiscent of the distinction between nonobligatory and obligatory control, as proposed by Williams (1980), is due, but only in part, to the individual lexicosemantic properties of the complement-selecting predicates. I will show that there are syntactic aspects of control that cannot be accounted for by any theory that considers control (and mood selection) to be a purely semantic matter (see Joseph 1992, Farkas 1992a, among others). In this essay, I will try to attain a generalization regarding the syntactic conditions that require a particular null subject in a particular environment and, ultimately, to establish a correlation between types of empty categories (ecs) and properties of clauses that license these ecs.

Varlokosta and Hornstein (1993) argue on the basis of an earlier proposal by Iatridou (1993) that MGrk subjunctives do not constitute a uniform class but should rather be divided into two subsets, and that each subset can be identified through the type of null subject that it takes—pronominal *pro* versus anaphoric PRO. The discussion of the Bulgarian data (in section 2) will confirm the essential correctness of this proposal. Once the distribution of *pro* and PRO in Blg and MGrk subjunctive clauses is captured, it will be shown that the two types of contexts are mutually exclusive and can be defined through a correlation with the morphological content of subjunctive tense in terms of feature strength (section 3). Thus, my analysis will lead to the conclusion that optional and obligatory control of the null subjunctive subject in cases like (1a) versus (2a) does not result from properties intrinsic to *pro* or PRO⁵ but is rather a consequence of the distribution of tense features and ultimately an instantiation of feature checking in the relevant configurations (section 4).

I will adopt the Minimalist approach of Chomsky (1993) with some insights from Chomsky (1995.chap. 4) concerning the motivation and the conditions of (overt and covert) movement as driven by feature-checking considerations. I will assume the standard view that *pro* has nominative Case, which is checked by the strong features of finite tense. With respect to PRO, I will adopt the Case-theoretic account of its distribution, as proposed by Chomsky and Lasnik (1993), who argue that PRO is the minimal Case-marked DP that checks null Case against a minimal Infl. "Minimal" Infl is identified with the weak feature of nonfinite tense (i.e., [-tense]) typically associated with control infinitivals, for instance, in English. For MGrk and Blg, however, which do not exhibit any finite/nonfinite distinctions in their subjunctive complements, the correct identification of tense features in terms of strength is still not fully understood.

I will assume that the structure that corresponds to MGrk and Blg subjunctive complements is as in (3). I will adopt the view (of Chomsky 1995.chap. 4)

that agreement features are checked in a Spec-head relation within TP, following adjunction of V (or its tense features) to T and raising of Su to Spec, TP:

$$(3) \quad V^0_1 \{_{CP} C^0 \{_{MP} M^0 \{_{TP} T^0 \{_{VP} SU V^0_2 \} \} \} \}$$

The idea that finiteness and PRO are not in complementary distribution (at least in the Balkan languages) was originally proposed by Terzi (1991) (cf. also Terzi 1992, 1997). For Terzi, the "task" of licensing PRO is given to the particle *na* which heads a M(ood)P(hrase) (for a similar analysis see also Rivero 1994) and checks null case in all subjunctives as opposed to indicatives. While I adopt the existence of an MP, I do not agree that M is involved in null Case-checking. In my view, M is simply a label for the position occupied by the particle, and as such, it is not responsible for deriving the structural properties of the null subject in MGrk and Blg control complements.

2. Null subjunctive subjects in Bulgarian: Cross-linguistic parallels

In this section, I will briefly discuss the Blg data and show that Blg subjunctives distribute like their MGrk counterparts and exhibit similar structural properties and subject (co)reference effects. Subjunctive complements in Blg are introduced by the particle *da* followed by a finite verb (or a finite auxiliary), which shows tense restrictions but full person and number agreement. Compare (4a) and (4a') with (4b) and (4b'):

- (4) a. *Ivan_i iska ec_{ij} da sledva.* Blg
 Ivan want-3SG da study-3SG
 'Ivan wants to go to college.'
- a'. *O Janis_i elpizi ec_{ij} na fiji.* MGrk
 the Janis hope-3SG na leave-3SG
 'Janis hopes to leave.'
- b. *Ivan može ec_{ij} da spečeli pari.* Blg
 Ivan can-3SG da make-3SG money
 'Ivan can make money.'
- b'. *O Janis_i bori ec_{ij} na majirevi.* MGrk
 the Janis can-3SG na cook-3SG
 'Janis can cook.'

In (4a) which corresponds to (4a') from MGrk the embedded subject may but need not be coreferent with the matrix subject, while in (4b) which corresponds to (4b') from MGrk, it has to be coreferent. Rudin (1986) has argued convincingly that the particle *da* is not a complementizer,⁶ so the subjunctive clauses in (4a/b) are headed by a null complementizer, on a par with their MGrk counterparts.

Extending Varlokosta and Hornstein's (1993) proposal to Blg, I would like to claim that Blg subjunctives do not constitute a uniform class because one

subset (as in (4a) and (4a')) may take a *pro* subject, while the other (as in (4b) and (4b')) may take a PRO subject. These two subsets will be labeled Type I and Type II S(subjunctives), respectively. Since I assume that each subjunctive type is a matter of selection, I propose that epistemic verbs (for example, *nadjavam se/elpižo* 'hope', *vjarvam/pistevo* 'believe', *trjabva/prepi* 'must', etc.) and volitionals/desideratives (for example, *iskam/θelo* 'want', *želaja/epiθimo* 'wish', etc.) select a Type I S, while aspectual verbs (for example, *započvam/arxižo* 'begin', *produlžavam/sinexižo* 'continue', *spiram/stamatao* 'stop', etc.) and (subject) control⁷ verbs (for example, *znaja/ksero* 'know', *moga/boro* 'can', *opitvam se/prospaθo* 'try', *zabravjam/ksexnao* 'forget', *uspjavam/profθeno* 'succeed', *vūznamerjavam/sxediažo/skopevo* 'intend', etc.) select a Type II S.⁸

Moreover, in terms of interpretation, I claim that Type I Ss have a prototypically subjunctive function, while Type II Ss have a prototypically infinitival function. In terms of selection, the former type correlates with "true" subjunctives in languages that mark this mood morphologically. It is wellknown that Romance languages consistently select the subjunctive in volitional (the equivalents of *want*), desiderative (the equivalents of *wish*, *desire*) and epistemic contexts (the equivalents of *it is possible*, *it is necessary*, etc.), and also with some (epistemic) indicative-taking verbs under negation (e.g., *know*, *think*, *believe*) (see Farkas 1992a for an extensive discussion of semantic classes of verbs and mood selection). While I will not be concerned with Balkan-Romance cross-linguistic parallels, such facts might provide additional empirical support for the above generalization.

Type II Ss in Blg and MGrk, on the other hand, correlate with (subject) control infinitivals in languages which mark the finite/nonfinite distinction.⁹ For example, they do not allow passivization (5a), ECM (5b), or *wh*-extraction (5c), and they show a lack of WCO effects with scrambling (5d), just like English *try*-class verbs:

- (5) a. **Ivan beše uspjäl [e da zamine.]*
 Ivan was-3SG managed da leave-3SG
- b. **Ivan uspjä [Petür da zamine.]*
 Ivan managed-3SG Peter to leave-3SG
- c. **Koj uspjä Ivan [t da zamine?]*
 who managed-3SG Ivan to leave-3SG
- d. *Njakoj_i, šefovete mu_i ne uspjäxa [e da go nakažat.]*
 someone bosses his not managed-3PL da him punish-3PL
 'Someone, his bosses did not manage to punish.'

2.1. A brief historical overview

From a historical perspective, it is apparent that Blg *da*-clauses have developed under Greek influence (Joseph 1983), starting from the earliest translations of

the biblical texts (ninth and tenth centuries). Interestingly, the *da* + *V* complex, which came to replace the Old Blg infinitive, was originally introduced in clauses that required distinct subjects (6a) or in ECM clauses (6b). Typically, these cases would correspond to an accusativus cum infinitivo construction in the Greek text, as shown under the respective glosses:

- (6) a. *ašte xošton da tū prebondetū*
 if want-1SG da he survive-3SG
 (Cod. Zogr., Io. 21.22)
 ἔαν αὐτον θέλω μένειν
- b. *ne xoštemū semu da crsuetū nadū nami*
 not want-1PL him da rule-3SG above us
 (Cod. Zogr., Lk. 19.14)
 οὐ θέλομεν τοῦτον βασιλεῦσαι ἐφ' ἡμᾶς

It is important to note that even after *da*-clauses have gained a much wider distribution and entirely replaced the infinitive in all other contexts, verbs typically expressing deontic modality or some sort of an aspectual meaning continued to function as the only predicate type still compatible with an infinitive (cf. (7)):

- (7) *Ne možeši bo tūj sūtrūpjati skrbii pustinskivū.*
 not can-2SG moreover you-NOM endure-INF sorrows of-a-hermit
 (Cod. Supr., 169.27–28)

With respect to subject reference, the contrast between (6a) and (7) is reminiscent of the rivalry between the subjunctive and the infinitive in Romance (cf. (8a) and (8b) from Spanish). Thus, (6a) seems to instantiate the wellknown obviation effect typical for Romance subjunctives but generally lacking in the Balkan languages:¹⁰

- (8) a. *Juan_i desea [que pro_j/Maria vaya con él.]*
 John wish-3SG that pro/Maria go-3SG.SUBJ with him
 'John wants Mary to go with him.'
- b. *Juan desea [PRO ir a la playa.]*
 John wish-3SG [PRO go-INF to the beach.
 'John wants to go to the beach.'

I will not be concerned with the lack of obviation in Modern Blg; I will simply note that the distinction between Type I and Type II Ss achieves a concrete result in this direction. Farkas (1992b) argues that in Romance and other languages, obviative complements are a subset of the subjunctive complements and appear precisely in those contexts where the infinitive may alternate with the subjunctive. Thus, the obviation effect is closely related to the role played by the infinitive. With the elimination of the Old Blg infinitive, the domain of control in *da*-complements corresponding to Type II Ss became

strictly differentiated from that of Type I Ss, which presumably had the effect of blocking the possibility for an obviative reading of the null subjunctive subject in the latter.

2.2. *pro* subjects in Type I subjunctives

Now, let us examine some evidence that will reinforce the proposed distinction between the two types of subjunctive clauses in Blg. The issue of systematically differentiating between *pro* and PRO becomes important due to the fact that *da*-complements are finite with strong agreement, and therefore *pro* and PRO will not differ in terms of ϕ features, although, in theory, they will differ in terms of Case.

In this subsection, I will argue that the set of pronominal properties typically associated with *pro* gives the basis for the proper identification of the null subject in subjunctives of Type I in Blg as *pro* (for MGrk see Terzi 1991, 1992; Iatridou 1993; Varlokosta and Hornstein 1993).

First, there is no complementary distribution between null subjunctive subjects and nominative DPs or overt pronouns, a behavior expected of *pro* and not of PRO. As the indices in (9) illustrate, the overt pronoun can refer to the matrix DP or to some other DP, salient in the discourse.¹¹ The same indexing applies to the *ec*, which points to the fact that it behaves like an empty pronominal by virtue of its specific and free reference:

- (9) *Ivan_i iska [brat mu/toj_{ij}/ec_{ij} da sledva.]*
 Ivan want-3SG brother his/he da study-3SG
 'Ivan wants his brother/him to go to college.'/'Ivan wants to go to college.'

Further, (10a) from Blg and its MGrk parallel (10b) show that embedded agreement can take any person or number value, irrespective of the agreement within the matrix clause. Again, this is to be expected, if the subjunctive subject is *pro* and not PRO: like DPs or overt pronouns (as in (9)), *pro* has nominative Case, which is checked against the embedded Infl (tense, as I have assumed). Besides, the *pro* subject can be referentially free because its content will always be identified by the finite agreement in the embedded clause. The latter therefore defines a complete functional complex (in Chomsky's 1986 terminology):

- (10) a. *Nadjavam se [pro da dojdeš/dojdat.]*
 hope-1SG da come-2SG/come-3PL
 'I hope that you/they come.'
 b. *Elpizo [pro/na erθis/erθun.]*
 hope-1SG na come-2SG/come-3PL
 same as in (10a)

Consequently, (10a) and (10b) are opaque complements, as are their respective indicative counterparts in (11a) and (11b): in both languages the verb *hope*

may also take an indicative complement with the lexical complementizer *če/oti* 'that':

- (11) a. *Nadjavam se [če pro šte dojdeš/dojdat.*
 hope-1SG that will come-2SG/come-3PL
 'I hope that you/they will come.'
- b. *Elpizo [oti θα erθis/erθun.*
 hope-1SG that will come-2SG/come-3PL
 same as (11a)

Further, if *pro* is available in structures like (10), then it should be possible for the null subject to function as an expletive, according to Safir and Jaeggli's (1989) diagnostics. Constructions (12a) and (12b) show that this prediction is borne out:

- (12) a. *Nadjavam se [pro ex da e očevidno[če toj šte uspee.* Blg
 hope-1SG to be-3SG obvious that he will succeed-3SG
 'I hope it is obvious that he will succeed.'
- b. *Elpizo [pro ex na min vrexī avrio.* MGrk
 hope-1SG na NEG rain-3SG tomorrow
 'I hope it will not rain tomorrow.'

Higginbotham (1992.note 84) has noted that a pronoun may receive a covariant or an invariant interpretation under gapping or VP ellipsis. Under the former interpretation referred to as "sloppy identity" reading, the reference of the pronoun as a bound variable shifts with that of its antecedent, while under the latter interpretation, also known as "strict identity" reading, the reference of the pronoun is invariably associated with that of its original antecedent. Consider (13) from Blg:

- (13) *Ivan iska [pro da zamīne], sūšto i Petūr [vp ∅]*
 Ivan want-3SG to leave-3SG too and Peter
 'Ivan wants to leave, and so does Peter.'

In (13) the null subject in the elided VP [*iska [ec da zamīne]*] 'wants to leave' can refer back to the next higher subject *Petūr* or to the superordinate subject *Ivan*, that is, it admits both the sloppy and the strict identity readings, which correspond to (13i) and (13ii), respectively:

- (13) i. Peter wants him, Ivan, to leave.
 ii. Peter wants himself, Peter, to leave.

The fact that the null subject in (13) can be invariant (the strict reading in (13ii)) or covariant (the sloppy reading in (13i)) provides further evidence that the null embedded subject in Type I Ss has a *pro* status.

2.3. PRO subjects in Type II subjunctives

I claimed above that Type II Ss have an anaphoric PRO subject, which requires a local DP controller in order to be interpreted regardless of the fact that the embedded agreement serves to identify its featural content. This requirement imposes a strict identity condition on the agreement specification of the matrix and the embedded verbs (compare (14) with (10) above) and the same time excludes the possibility of an arbitrary PRO in Blg control structures, as the ungrammaticality of (15a) shows:

- (14) *Ivan može* [PRO *da zamine/*zaminem/*zamineš.*]
 Ivan is-able-3SG *da* leave-3SG/leave-1PL/leave-2SG
- (15) a. **Ivan može* [PRO arb *da SE zamine.*]
 Ivan is-able-3SG *da SE* leave-3SG
- b. *Mary is able PRO to wash herself/*oneself.*

In (15a) the embedded clause contains the impersonalizing particle SE, which generally produces arbitrary effects when added to a third person verb in Blg. It has been noticed (Bouchard 1984, Koster 1984, among others) that the relationship between PRO and its controller is similar to the relationship between an anaphor and its antecedent. Thus, from a binding-theoretic perspective, (15a) will be ruled out for the same reason as (15b) in English is ruled out—lack of an appropriate antecedent to bind the anaphor (but see Lasnik 1992 for arguments that Control cannot be reduced to the principles of binding theory). If *arb* effects in Blg are related to the structural properties of the embedded subject (as Krapova 1996 has argued), then we may expect that the feature *arb* will be compatible only with *pro* subjects. Construction (16), which has a Type I S, confirms this observation:

- (16) *Ivan iska* [*pro arb da SE trügne sledobed.*]
 Ivan want-3SG to SE leave-3SG afternoon
 ‘Ivan wants (for people/one) to leave in the afternoon.’

Given that the null subject in Type II Ss is PRO and not *pro*, it will be in complementary distribution with lexical DPs and with bound or free pronouns, as (17a) and (17b) illustrate:

- (17) a. *Ivan_i uspja* [PRO/**toj_i*/**brat mu* Blg
 Ivan succeeded-3SG he/brother his
da spečeli mnogo pari.
da make-3SG a lot of money
 ‘Ivan succeeded in making a lot of money.’
- b. *O Jani tha profθasi* [PRO *na kani* MGrk
 the Janis will succeed-3SG to make-3SG
*mja volta (*o ađelfos tu/*aftos)*
 a walk (brother his/he)
 ‘Janis will be able to go for a walk.’

Since lexical subjects have nominative Case, while PRO has null Case, the contrast between (17) and (9) above yields an explanation in terms of Case (see section 4 for a proposal on how Case-checking operates in subjunctive clauses). Consequently, Type II Ss provide a null Case-checking environment, while Type I Ss provide a nominative Case-checking environment.

Turning to the properties of the possible controllers of PRO in contexts with Type II Ss, it should be noted that the content of PRO is sensitive to the referential properties of its local (pronominal) antecedent (Higginbotham 1992). In (18), which presents a combination of a Type I and a Type II S, PRO may have the same reference as the pronoun in the intermediate clause:

- (18) *Ivan_i ne si predstavja [pro_{ij}/toj_{ij} da može* Blg
 Ivan not imagine-3SG he da can-3SG
 [PRO_{ij} da zamine vednaga.]
 da leave-3SG immediately

‘Ivan does not imagine that he will be able to leave right away.’

In (18) PRO admits two interpretations—it can be either free or coreferent with the superordinate subject *Ivan*. This ambiguity is due to the fact that PRO inherits the referential capacity of its overt or null pronominal antecedent.

In (19) it is shown further that, as expected of PRO, null subjects in Type II Ss admit only a covariant interpretation under VP ellipsis (following Higginbotham’s 1992 diagnostics). Thus, PRO in (19) allows only the sloppy identity reading given in (19i) (similar facts hold for MGrk as well, as Varlokosta and Hornstein 1993 report):

- (19) a. *Ivan vūznamerjava [PRO da započne rabota], sūšto i Petūr [vp ∅]*
 Ivan intend-3SG da start-3SG work too and Petūr
 ‘Ivan intends to start work and so does Peter.’
- (19) i. ‘Ivan intends to start his, Ivan’s work and Peter intends to start his, Peter’s work.’

Finally, (20) from Blg and (23) from MGrk show that the null subject in Type II Ss is thematically constraint:

- (20) a. *Ivan šte se opita [PRO da pomaga na Anton.]*
 Ivan will try-3SG da help-3SG to Anton
 Ivan will try to help Anton.’
- b. **Ivan šte se opita [PRO da napodobjava na Anton.]*
 Ivan will try-3SG to resemble-3SG to Anton
- (21) a. *O Janis tha stamatisi [PRO na voiθai ton Andoni.]*
 the Janis will stop-3SG to help-3SG the Andonis.
 ‘Janis will stop helping Andonis.’
- b. **O Janis tha stamatisi [PRO na mjasi ston Andoni.]*
 the Janis will stop-3SG to resemble-3SG to-the Andonis.

The fact that control complements in Blg and MGrk take agentive subjects is compatible with Lasnik's (1992:240) observation that "for a wide range of obligatory control constructions, the predicate of the complement must be an intentional action, that is one either fully, or partially within the intentional control of the subject."¹² So we would expect that when the matrix predicate selects a Type I S with a *pro* subject, no thematic constraints will be imposed on *pro*. That this expectation is borne out is shown by (22) from Blg:

- (22) a. *Ivan se nadjava* [*pro da poseštava Petūr.*]
 Ivan hope-3SG da visit-3SG Petūr
 b. *Ivan se nadjava* [*pro da napodobjava na Petūr.*]
 Ivan hope-3SG da resemble-3SG to Petūr

Thus, with verbs that permit either *pro* or a lexical DP as the subject of their subjunctive complement, a full range of θ roles is available to that subject. This situation finds a parallel in English for verbs like *want*, which may take a lexical NP as well as PRO, that is, they do not require an obligatorily controlled PRO, as Williams (1980) and Lasnik (1992) have observed:

- (23) a. *John wanted* [*Sue/PRO to visit Bill.*] (Lasnik's (38) and (41))
 b. *John wanted* [*Sue/PRO to resemble Bill.*]

To summarize, the above discussion seems to provide strong arguments in favor of an important distinction between Type I and Type II Ss in Blg as well as in MGrk in terms of the empty category of their subjects. Several tests have been used to establish the validity of the distinction on both syntactic and semantic grounds. I have argued that each ec is associated with an array of properties which uniquely identify them as *pro* and PRO, respectively. More concretely, it has been shown that in Type I Ss the null subject has a *pro* status since it may alternate with a lexical DP or an overt pronoun, it may function as an expletive, it permits a covariant and an invariant interpretation, it is compatible with arbitrary effects and it is not thematically constrained. On other hand, Type II Ss should be associated with anaphoric PRO since their null subject instantiates none of the above properties.

3. On the tense properties of subjunctives

In light of the above discussion, we are left with a paradox: if both *pro* and PRO are licensed in the subject position of the embedded *da/na*-clause, then two Cases will have to be checked within the embedded clause—*pro* will check nominative, while PRO will check null Case. Thus, we have to explain how the right type of Case is checked in each configuration. If we manage to do this, then we can go one step further—namely, to claim that the above-enumerated properties of the two types of subjunctives are not inherent to the contrast between *pro* and PRO but can be motivated to follow from or at least to correlate with some other properties of the clauses in which they are licensed.

Although it is generally true that subjunctive tense is defective and usually anaphoric, I will show that Type I and Type II Ss differ with respect to their tense specification. More precisely, I will argue that in terms of tense features, the former has a richer semantic content than the latter. In this section, a more detailed examination of this important distinction is provided.

Turning now to the data, the following generalization obtains: Type I Ss may not appear in the whole range of indicative tenses,¹³ but they nevertheless exhibit fewer tense restrictions than Type II Ss. This seems true for both MGrk (as originally observed by Iatridou 1993) and Blg (as observed by Maldjieva 1989).

Since Type I Ss appear as complements to epistemic and volitional predicates, they have a "possible future" interpretation (Bresnan 1972), that is, they describe something hypothetical or unrealized. Picallo (1984) notes that the value of the tense operator in subjunctive clauses cannot be specified within a given set of points in time, leaving undetermined whether the event in V has occurred or will occur.

Bulgarian and Modern Greek subjunctives are incompatible with the morphological past (aorist) tense and the future tense, implicating that the [\pm past] features in embedded tense do not have an independent status. Besides, the aorist in Blg conveys a modalized meaning, called "event-witnessing" (Kucarov 1994), which is incompatible with a hypothetical/irrealis interpretation and also with the fact that subjunctives cannot be assigned a truth value as far as the speaker is concerned (Farkas 1992a). With respect to other tense restrictions, however, Type I and Type II Ss behave differently. With the exception of the future and the aorist, Type I Ss permit all of the indicative tenses: present (the unmarked case), imperfect, present perfect and past perfect. Consider first present tense subjunctives ((24a) and (24b)) from Blg and their MGrk parallels ((24a') and (24b')):

- (24) a. *Nadjavam se da dojdeš.* a'. *Elpizo na erθis.*
 hope-1SG da come-2SG hope-1SG na come-2SG
 b. *Nadjavax se da dojdeš* b'. *Ilpiza na erθis.*
 hope-past-1SG da come-2SG hope-past-1SG na come-2SG

With present tense matrix verbs (as in (24a) and (24a')), the "unrealized" future reading of the present tense subjunctive is readily available, since the time of the evaluation coincides with the speech time. With past tense verbs (as in (24b/b')), the present tense subjunctive has a "future-relative-to-past" value, since the time of the evaluation coincides with the matrix clause event time. This is confirmed by the possibility of having different temporal adverbs in the higher and lower clauses, as in (25):

- (25) *Včera si mislex [Ivan utre da me zavede na kino.]*
 yesterday think-IMPF.1SG Ivan tomorrow da me take-3SG to cinema
 'I was thinking yesterday that Ivan could take me to the cinema tomorrow.'

We see in (25) that the future-oriented adverb *utre* 'tomorrow' has narrow scope and does not conflict with the higher past tense, nor with the past-oriented

adverb *včera* 'yesterday' that modifies the higher clause. Such facts seem to show that Type I S clauses may denote an independent event and have a distinct time frame, although a specific temporal interpretation is imposed by the tense features of the matrix predicate (see Varlokosta and Hornstein 1993 for a discussion of relevant facts from MGrk).

This conjecture is confirmed by some additional facts concerning the interpretation of perfect tense subjunctives illustrated in (26):

- (26) a. *Nadjavam se da e došul veče.* Blg
 hope-1SG da be-3SG come-PRT already
 'I hope that he has come already.'
- b. *Nadjavax se da e došul/beshe došul.*
 hope-PAST.1SG da be-3SG come-PRT/was-3SG come-PRT
 'I hoped that you have/had come.'
- a'. *Elpizo na exi erθi pja.* MGrk
 hope-1SG na have-3SG come-PRT already
 same as (26a)
- b'. *Ilpiza na exi erθi/iixe erθi.*
 hope-PAST.1SG na have-3SG come-PRT/had-3SG come-PRT
 same as (26b)

In all the cases in (26) the perfect cannot be interpreted as a true past—that is, even if the action has taken place in the past, the embedded tense is still unrealized with respect to the time of the action of the matrix verb (Stowell 1982). This, however, does not imply that the perfect has no semantic contribution of its own. Rather, it still functions as a resultative tense relative to some reference point R and, depending on the matrix tense, may yield a hypothetical (26a/a') or a counterfactual (26b/b') interpretation. In (26), R coincides with the speech time by default, but R can be established by any time indicator, such as the temporal adverbials in (27) from Blg referring to the future ((27a)) or to the past ((27b)):

- (27) a. *Nadjavax se da si zaminal do utrel*
 hope-PAST.1SG da be-2SG left by tomorrow/
predi Ivan da se obadi.
 before Ivan da call-3SG
 'I hoped you would have left by tomorrow/before Ivan calls.'
- b. *Nadjavax se da si zaminal predi tri godini.*
 hope-past-1SG da be-2SG left before three years
 'I hoped you had left three years ago.'

All temporal adverbials have a narrow scope and serve to fix the time reference of the perfect relative to R, without conflicting with the (past) tense of the matrix verb, as predicted. Note that even if the subjunctive has a past perfect tense, as in (26b), this is not due to some morphological tense matching

mechanism (like the Sequence of tenses rule), because the embedded verb expresses much the same temporal relation (nonpast) with respect to matrix tense, as its present perfect counterpart. In other words, the +/–past distinction between the present perfect and the past perfect is neutralized in subjunctive contexts, and it is for this reason that past perfect subjunctives are relatively rare, at least in Blg.

The significant distinctions discussed above are hard to reconcile with the proposal put forward for MGrk that subjunctive tense should be specified with [–T], due to the restriction on the usage of the aorist (Iatridou 1993, Varlokosta and Hornstein 1993). On the other hand, if we allow the [+T] specification only for those Type I Ss, which can appear in the past tense (and with a limited number of verbs in MGrk such as *elpizo* ‘hope’, *pistevo* ‘hope’, *fandazome* ‘imagine’, etc.), we will be missing a generalization regarding the unitary behavior of the null subject, as established in the previous section. Since Type I Ss in both Blg and MGrk nevertheless exhibit tense distinctions, albeit fewer than the respective indicative complements, I will propose that their tense is uniformly specified with [+T]. Apparently, tense in Type I Ss lacks [±Past] features, but it contains other tense features, such as, for example, [±Resultative], which act in combination with the matrix tense features and yield the “unrealized future” interpretation invariably associated with this type of complement. In other words, the tense features of Type I Ss are not necessarily anaphoric upon matrix tense, although they depend on the latter in order to be interpreted (see note 13 and Dobrovie-Sorin 1994 for a similar interpretation of the Romanian subjunctives).

Consider now Type II Ss. First, compare (25) with the ungrammatical (28). Structures (28a) and (28a’) have the matrix control verb *znam/ksero* ‘know’, and (28b) and (28b’) have the matrix aspectual verb *započvam/arxizo* ‘begin’:

- | | | | | | | | |
|------|----|--------------|-----------------|---------------|--------------------|---------------|------|
| (28) | a. | *Sega | <i>znaja</i> | <i>da</i> | <i>pluvam</i> | <i>utre.</i> | Blg |
| | | now | know-1SG | da | swim-1SG | tomorrow | |
| | a’ | *Tora | <i>o Janis</i> | <i>kseri</i> | <i>na kolimbai</i> | <i>avrio.</i> | MGrk |
| | | now | Janis | know-3SG | na swim-3SG | tomorrow | |
| | b. | *Sega | <i>započvam</i> | <i>da</i> | <i>pluvam</i> | <i>utre.</i> | Blg |
| | | now | begin-1SG | da | swim-1SG | tomorrow | |
| | b’ | *Tora | <i>o Janis</i> | <i>arxizi</i> | <i>na kolimbai</i> | <i>avrio.</i> | MGrk |
| | | now | Janis | begin-3SG | na swim-3SG | tomorrow | |

The authors explain the ungrammaticality of the MGrk examples in (28a’) and (28b’), borrowed from Varlokosta and Hornstein (1993), by pointing out that each of these sentences denotes one event aspectually, namely that of “knowing an activity” or “beginning an activity”. The same explanation can be extended to the Blg examples (28a) and (28b). Since there is only one event, the temporal specification of the embedded event is identical to that of the main predicate.

But there are other cases to consider, because some Type II Ss can denote an independent event, this property being a matter of selection. One such case is

illustrated in (29) from Blg. In (29), however, the embedded event is necessarily interpreted as being simultaneous with the matrix event:

- (29) *Ste zabravja da kupja luk utre.*
 will forget-1SG da buy-1SG onions tomorrow
 'I will forget to buy onions tomorrow.'

The temporal adverb *utre* 'tomorrow' in the embedded clause can serve to modify the whole expression, that is, it has wide scope. Thus, in (29) the adverb has a future time reference, and so does the whole expression.

Judging from the above facts, we have to expect that an embedded temporal adverb may be ungrammatical if it conflicts with matrix tense. This expectation is indeed borne out. In (30) it is shown that a matrix past tense is compatible only with past time indicators:

- (30) *Ne možax da kupja knjigata včera/*utre*
 not could-1SG to buy book-the yesterday/tomorrow
 'I could not buy the book yesterday/*tomorrow.'

Finally, control complements in both Blg and MGrk can appear only in the present tense, irrespective of the matrix tense. All other tenses are excluded, as the ungrammaticality of the examples in (31) from Blg show:

- (31) a. **Ivan može da e pročel pismoto.*¹⁴
 Ivan can-3SG da be-3SG read-PRT letter-the
 b. **Ivan možeše da pročeteše/beše pročel pismoto.*
 Ivan could-3SG da read-IMP.3SG/was-3SG read-PRT letter-the

I conclude, therefore, that control complements in Blg and MGrk, which correspond to Type II Ss, do not possess tense features at all. In (35) the present tense is tenseless or tense zero, which points to the fact that morphologically, tense in Type II Ss is more impoverished than in Type I Ss in terms of both formal (morphological) features and semantic content. Therefore, I will suggest that tense in Type II Ss is specified with [-T]. This specification will allow us to capture the strict anaphoric relation which exists between matrix and embedded tense.

The above discussion can be summarized with the following generalization about the nonuniform characteristics of the two types, based on the correlation between their temporal specification and the type of null subject they may take. Blg and MGrk have two types of subjunctive complements, one that licenses *pro* and another that licenses PRO. *Da/na*-complements with a PRO subject show some tense restrictions, but nevertheless, their tense features may not be anaphoric upon the matrix tense; hence, embedded tense is specified with [+T], although it lacks the [\pm Past] features. *Da/na*-clauses that have a PRO subject show very strict tense restrictions, and their tense features are anaphoric; hence, embedded tense is specified with [-T].¹⁵

4. Subjunctives, Case-checking, and V movement

In this section, I will offer an account of how nominative and null Case is checked in Blg and MGrk subjunctives.

I will adopt the proposal of Rivero (1994) and Terzi (1991, 1997) that the subjunctive particle *da/na* heads a projection of its own, M(ood)P(hrase). In view of my assumption that subjunctive complements are TPs, the strict adjacency requirement that holds between *da/na* and the verb cluster can be taken to indicate that the particle selects a TP, as shown in the configuration below:

$$(32) \quad [{}_{CP} C [{}_{MP} M^0 da/na [{}_{TP} T^0 [{}_{VP} SUBJ [{}_V \cdot OBJ]]]]]$$

Assuming that the verb is selected from the lexicon with tense and agreement on it, the V feature of T will check the tense on the verb, while its D feature will check the Case of the subject DP that raises to its specifier position. The DP carries along its ϕ features which will be checked against the Agr features of V in the Spec head relation established within TP.

Let us assume that the V feature of T is strong if T has the specification [+T]. On the other hand, the V feature of T is weak if T is specified as [-T]. Let us further assume (following Watanabe 1993) that strong T will check nominative Case, while weak T checks null Case. If feature strength is the motivation behind overt versus covert V movement, then in (32) strong T will trigger adjunction of V to T, since V has strong tense features that have to be checked against [+T]. Weak T, on the other hand, will trigger only covert raising, so only the tense features of V will adjoin to T, to be checked by [-T] (through Procrastinate). These two options correspond to the two possible choices of subjunctive subjects—*pro*/lexical DP in a Type I S and PRO in a Type II S. The former type will be chosen whenever the strong value of T is chosen, and the latter type is chosen whenever the weak value of T is chosen. This ensures that *pro*/lexical DP will move from Spec, VP to Spec, TP for nominative Case-checking in case T is occupied by the V+T complex. PRO, on the other hand, will move from Spec, VP to Spec, TP for Null Case-checking against the raised tense features of V. The opposite choice—namely the one by which PRO instead of *pro* moves to Spec, TP—is barred because strong T will not have satisfied its nominative Case feature and the derivation will crash. Alternatively, if *pro* rather than PRO raises to Spec, TP for Null Case-checking, the derivation will crash again, since in this case weak T will not have satisfied its Null Case feature.

As a result of this discussion, we obtain the representations in (33) for Type I and Type II Ss, respectively:

$$(33) \quad \begin{array}{l} \text{a. } [{}_{CP} [{}_{MP} da/na [{}_{TP} pro/\text{lexical DP V+T } [{}_{VP} t_v]]]] \\ \text{b. } [{}_{CP} [{}_{MP} da/na [{}_{TP} PRO T [{}_{VP} V]]]] \end{array}$$

Unfortunately, (33) predicts that a lexical DP should be able to intervene between *da/na* and the verbal complex, contrary to fact, as (34) shows:

- (34) a. *Iskam decata/vsički da (*decata/*vsički) otidat na kino*
 want-1SG children-the/all da children-the/all go-3PL to cinema
 'I want the children/all to go to the cinema.'
- b. *Øelo na (*ta peđja/*oli) pane taksiđi.*
 want-1SG na the children/all go-3PL trip

In order to account for the strict adjacency that holds between *da/na* and the following verb, I will propose that in (33) V moves on to adjoin to the particle, overtly in (33a) and covertly in (33b). The reason for this movement, I assume, lies in the fact that V has to check its categorial feature against the V feature of the particle. Indeed, the particles *da/na* are compatible only with finite verbs; they cannot co-occur with participles or gerunds. This will account for the desirable word order in (34a), since the subject will be left behind in Spec, TP. In (33a) the categorial feature of the raised V is still accessible to the computation and remains visible at LF by virtue of being interpretable (Chomsky 1995:chap. 4), although it has been checked by T as a free-rider (via the adjunction operation). The same applies to (33b), but in this case the categorial feature raises along together with V's tense features.

One final note concerns the distribution of lexical subjects in Type I Ss. In Blg, the lexical subject can appear either preverbally (as in (34a) above and (35a) below) or postverbally (as in (35b)). In MGrk the word order is constrained and subjects appear postverbally (the unmarked case, as in (36)) unless preposed for focusing (the marked case):

- (35) a. *Iskam [Ivan da zamine.*
 want-1SG Ivan da leave-3SG
- b. *Iskam [da zamine Ivan.*
 want-1SG da leave-3SG Ivan
- (36) *Øelo [na erθoun ta peđja.*
 want-1SG na come-3PL the children

To account for the unmarked word order in (36), Terzi (1992, 1997) proposes that the complex *na+V* has moved overtly to C, thereby licensing nominative Case on the embedded subject, in a way that is reminiscent of Aux-to-Comp movement in Italian (Rizzi 1982). In fact, Terzi proposes that *want*-class verbs in MGrk have a double subcategorization frame—one with PRO (an obligatory control structure) and another with *pro*/lexical subject, as in (37) and (38), respectively, which correspond to Terzi's (67) and (68):

- (37) $V_{\text{want/hope}} \{_{\text{CP}} \{_{\text{C}} 0 \{_{\text{MP}} \text{PRO} \{_{\text{M}'} \text{M} \{_{\text{IP}} \{_{\text{I}'} \text{V} \dots \} \} \} \} \}$
- (38) $V_{\text{want/hope}} \{_{\text{CP}} \{_{\text{C}} \text{M+V} \{_{\text{MP}} \{_{\text{M}'} \text{e} \{_{\text{IP}} \text{pro/lexical DP} \{_{\text{I}'} \text{e} \dots \} \} \} \} \}$

Building on an earlier proposal by Terzi (1992), Watanabe (1993a) argues that there is a systematic correlation between the shape of Comp and the Case of the embedded subject: only lexically filled C can be associated with nominative Case. Empty C, on the other hand, is compatible with a control configuration,

and therefore it is legitimate for the embedded subject in (37) to be PRO (see also Kayne 1991 who claims this to be true for English and Romance control infinitives).

However, the fact that the preverbal subject in (35a) from Blg is nominative does not allow us to posit a *da+V-to-C* movement for (35b), comparable to the one in (38), for the purpose of licensing nominative Case on the subject. If nominative subjects can be licensed *in situ*, this type of movement will lack motivation and will thus create a problem for Watanabe's theory. More important, though, the pair in (35) raises the question about the specification of the empty C in both Blg and MGrk subjunctive clauses.

With respect to the lexical content of C, I will assume that C in Blg and MGrk subjunctives contains the feature [+finite], as do all indicative complements (Rizzi 1997). Suppose that V's tense features in Type I Ss raise (by Move F) to the embedded C¹⁶ to check off [+finite]. This movement will allow for the proper relation to be established between the matrix and embedded T, in view of the tense dependency that we observed in section 3. Suppose further that C in Type II Ss has an additional abstract (null) tense feature in addition to the [+finite] one. In this case, raising of embedded V's tense features to C will ensure the strict matching of the specification in C and T (otherwise the derivation will not succeed). If a null tense feature can be interpreted as signaling a lack of (independent) tense or as yielding a simultaneous construal (Stowell 1996), then the strict anaphoric temporal relation between the matrix tense and the present tense of the subjunctive clause will follow.¹⁷ What type of specification C has will depend on the selectional properties of the higher V, possibly along the lines of Rivero's (1987) proposal about the index-sharing mechanism between V and its *th*-marked CP complement.

Turning back to the contrast in (35), we find that, interestingly, (35a) and (35b) have different interpretations: (35b) can be roughly paraphrased as *I want the act of leaving to be performed by John*, while (35a) can be paraphrased as *I want John's leaving*. In other words, in (35b) the focus of the desire is on the event of leaving, while in (35a) the concentration is on the participant (namely *Ivan*) in the event of leaving. Construction (35a) is reminiscent of a pseudorelative structure. It thus seems that when the subject is preverbal, the subjunctive tends to have nominallike properties.

Suppose it is not the shape of C but rather the D feature of M that is responsible for the difference between (35a) and (35b)/(36). Suppose further that the D feature of M can be parametrized in terms of strength (as suggested to me by M. Rivero, private communication), so that one or the other value is involved in each interpretation. Thus, when the D feature is strong, it will trigger movement of the subjunctive subject from Spec, TP to Spec, MP. This will account for the SV order in (35a). On the other hand, if the D feature of M is weak, the subject will not have to raise to Spec, MP and the VS order of (35b) will follow. Consequently, lexical subjects in Blg can raise higher than Spec, TP but are not obliged to do so. In view of this proposal, it can be argued that in (36) the lexical subject does not move to Spec, MP because M in MGrk has a weak D feature. Thus, the VSO order in MGrk does not result from overt

movement of *na*+V to C but is rather due to a weak D feature of M that does not attract the subjunctive subject to Spec, MP.

5. Conclusion

In this essay, I have argued that there are two types of subjunctive clauses in MGrk and Blg. I have labeled them Type I and Type II and have tried to show that each type displays uniform behavior in terms of subject reference and semantic (tense-related) properties. Further, I have tried to correlate the tense dependencies typical for all subjunctive and infinitive complements with the Case possibilities for the subject in these clauses by showing that strong tense features are compatible only with *pro* (and nominative) subjects, while weak tense features are compatible only with PRO subjects. Thus, I established that the properties of null subjunctive subjects are not inherent to the contrast between *pro* and PRO but follow from the tense properties of the clauses that license these empty categories. I argued that Case (nominative versus null) is checked in the domain of the embedded clause, with a follow-up process of checking the featural specification of C. Such an analysis obviates the need for an overt V movement to account for the word order restriction in MGrk and thus complies with last resort and the spirit of the Minimalist framework in general.

Notes

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1. Throughout the paper I will be using the term *subjunctive* as a cover term for all *da/na*-clauses, irrespective of their functions or interpretation as subjunctives or infinitives.

2. Romanian has subjunctive morphology (although "reserved" for third person forms), a subjunctive complementizer *ca* and a subjunctive particle *să* (but see Dobrovie-Sorin 1994 for an account of the ambiguous status of *să* as a Comp/Infl element). Albanian has no subjunctive morphology but does have a subjunctive complementizer (*që*) and a special subjunctive particle (*të*) (Turano 1995). Serbo-Croatian (insofar as it is a Balkan language) has no subjunctive morphology but has the subjunctive particle *da* which functions as a complementizer (Zec 1987, among others).

3. Throughout the essay, the subjunctive particles in MGrk and Blg will be glossed "na" for Greek and "da" for Bulgarian.

4. In this essay, I will be concerned with subject control only, and the conclusions will apply only to subject control complements. The structural and referential properties of object control subjunctives and ECM complements remain outside the scope of the present investigation.

5. Such a line of reasoning brings my proposal closer to the spirit of Huang's (1984) and Borer's (1989) theories regarding the possibility for a unifying description of *pro* and PRO in terms of control. However, we cannot appeal to rich

agreement as a way to achieve the control properties of *pro*, since agreement is rich in all subjunctive complements in Blg, irrespective of whether they take *pro* or PRO subjects.

6. The adjacency restriction between the particle and the following verb is a characteristic property of all Balkan subjunctives. Apart from this restriction, which is generally not typical for complementizers, Rudin (1986) gives three more arguments for the noncomplementizer status of *da*: (1) *da* can co-occur with complementizers like *če* 'that', *dali* 'whether', or *deto* 'that/which'; (2) *wh*-words can co-occur with *da* but not with complementizers; and (3) focused constituents are placed between the complementizer and *da*, separating *da* from Comp.

7. Within this semantically defined categorization, the term *control verb* can be correlated with the semantic property of control in its broadest sense, i.e., as referring to verbs which take in any non-freely interpreted empty category (Joseph 1992).

8. Semantically, it is difficult to determine what differentiates the two sets of verbs that may select one or the other subjunctive type. A discussion of their semantic properties, however, will lead me too far afield and it is for this reason that I will not undertake it here. Arguably, verbs that take a Type II S subcategorize for either a proposition (in this way they resemble their English counterparts, such as *intend*, *succeed*, and *expect*) or an object DP. In the latter case the DP may be interpreted as one with an elliptical propositional reading, such as, for example, aspectuals: *I begin something = I begin to do something* (Hornstein and Lightfoot 1987; Rivero, to appear). In this respect, control verbs share a lot of similarities with ECM verbs like *očakvam* 'expect' (in its predictive reading) and perception verbs like *vizdam* 'see', *čuvam* 'hear', etc. (which could possibly fall under control theory as well). Negation plays an important role in that it seems to interfere with the selection of a Type I rather than a Type II S, on the one hand, and of a subjunctive rather than an indicative, on the other. Sometimes the restriction on the indicative is tied to a specific reading of the predicate (for example, when *know* denotes ability, it is used with a subjunctive, but in its epistemic sense it requires an indicative).

9. This generalization predicts that if a language has nonfinite complements as well as subjunctive ones, it will tend to use the infinitive in cases of obligatory control. This does not seem to be universally true for all Balkan languages. For example, Romanian allows control with subjunctives, even though it has infinitives as well. Dobrovie-Sorin (1994) has argued, however, that *a* infinitives in Romanian have an exclusively DP distribution (due to the nominal properties of the infinitive marker *a*), although they have the same categorial status as *să* subjunctives.

10. See Dobrovie-Sorin (1994) for a binding-theoretic explanation of the lack of obviation effects in Romanian subjunctives and Terzi (1991) for a discussion of relevant structures in MGrk.

11. With unstressed pronouns some speakers prefer the noncoreferent interpretation.

12. Interestingly, the contrast between the (a) and (b) sentences in (20) and (21) is comparable to that in (i) from English and is due to the fact that the embedded predicate does not allow a nonagentive PRO subject:

- (i) a. *John tried* [PRO to visit Bill.] (Lasnik's (36))
 b. **John tried* [PRO to resemble Bill.]

Lasnik (1992:241) notes that "these thematic constraints on Control tend to obtain only in configurations where PRO is demanded (rather than simply allowed)".

13. It has been noted (for example, Picallo 1984; Stowell 1982; Borer 1989; etc.) that tense in subjunctives is defective (or degenerate) in comparison to indicative clauses and that it is anaphoric upon the tense of the matrix clause. To account for the latter fact, one might argue that subjunctives lack a TP altogether (as proposed by Tsimpli 1990). However, as noted by Dobrovie-Sorin (1994.105), when it comes to temporal reference, anaphoricity does not imply lack of tense, but should rather be interpreted in terms of a referential dependency of the embedded tense features upon the matrix tense features. Thus, properties 1 and 2 are not independent but should rather be taken to correlate.

14. Note that (31a) in the text can be grammatical under an epistemic reading of the matrix verb *može* 'it is probable', since the verb *moga* 'can', when used in the third person is ambiguous between a root ('*be able*') and an epistemic interpretation. This contrast confirms my proposal that the verb *moga* can and in fact should be associated simultaneously with both subjunctive types, under the respective readings (see also note 8).

15. The contrast between the two subjunctive types in terms of the *pro*/PRO distinction is reminiscent of the wellknown contrast in (i), which illustrates that control structures prohibit an overt subject, while ECM structures require one:

- (i) a. *John tries PRO*Mary to finish his thesis*
 b. *John believes *PRO/Mary to be pregnant.*

Martin (1992), following Stowell (1982), proposes that this property correlates with tense: control tense is specified for [+T], while ECM tense is specified for [-T], hence ECM complements do not have an independent temporal interpretation. In terms of tense specification, it seems that Type I Ss (the nonobligatory control subjunctives) pattern with English Control tense, while Type II Ss (the obligatory control subjunctives) pattern with English ECM tense. I do not have an explanation for these "mirror-image" effects. Note however, that I do not accept that anaphoric tense dependencies (at least in Blg and MGrk) amount to lack of tense altogether. Instead, I suggest that control subjunctives have a tense node which is specified as [-T]. The assumption that [-T] specification should replace lack of tense will be shown to have important consequences for the minimalist account of null Case-checking of PRO.

16. This movement could also be due to a requirement on Case validation, as proposed by Watanabe (1993b).

17. Note that this proposal allows us to account for the tense dependencies exhibited in subjunctive clauses, making it irrelevant to posit different types of projections (CP or IP) for the various subjunctive complements based on co-occurrence with complementizers and *wh*-words (as in Varlokosta and Hornstein's 1993 analysis). The present proposal also obviates the need for positing different subcategorization frames for verbs like *want* and *hope*, for the purpose of capturing the word order restrictions in MGrk and the distribution of *pro*/PRO subjects (as in Terzi's analysis).

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Direct Object Clitic Doubling in Albanian and Greek

Dalina Kallulli

1. Introduction

A pervasive phenomenon in the languages of the Balkan is that of clitic doubling. This study investigates clitic doubling of direct objects in two of these languages: Albanian and Greek (MGrk). This undertaking is motivated by the need to gain deeper insight into the nature of clitic doubling constructions and in turn contributes to the general question of why clitic doubling appears at all. Doubling constructions are by their nature strongly reminiscent of object agreement constructions. Yet, there are essential differences between the two that beg for explanation. The Albanian and Greek patterns confirm the idea that in spite of certain similarities between clitic doubling and object agreement phenomena, the two cannot be equated. For instance, unlike object agreement markers, direct object clitics in Albanian and Greek have restricted distribution and operatorlike properties. It will be shown that the factors that determine clitic doubling of direct object DPs in both languages are by and large identical and can be captured by a uniform syntactic analysis. Crucially, I argue that direct object clitics in both languages unequivocally mark the DPs they double as [-Focus], which, in analogy with the [+Focus] feature on phrases (cf. Jackendoff 1972, Horvath 1986, Rochemont 1986, Brody 1990, among others), will be defined as a syntactic feature on phrases interpretable at both the LF and PF interfaces. Consequently, clitic doubling of direct object DPs does not induce specificity on these DPs, as has been claimed for Romance (cf. Sportiche 1992, Uriagareka (1995, among others)). It will be argued instead that the locus of specificity is the D position (cf. Abney 1987), which for noun phrases underlies argumenthood (cf. Longobardi 1994). The view that direct object clitics in Albanian and Greek mark the DPs they double as unambiguously [-Focus] may be implemented successfully within the minimalist framework (cf. Chomsky 1995) by preserving Sportiche's (1992) basic assumption that clitics head their own maximal projections and that direct object clitics in particular are heads with operatorlike properties. Importantly, it will be argued that argument clitics carry a D-feature, which is why they may double only DPs, not NPs,¹ and that specificity,

presuppositionality, and/or strength effects often attributed to clitic constructions (cf. Sportiche 1992, Uriagareka 1995, Anagnostopoulou 1994, among others.) are only epiphenomenal, straightforwardly derived through the need to feature match.

This paper is organized as follows. I start out in section 1 by outlining and scrutinizing the general properties of Albanian and Greek clitic doubling. This is motivated by the need to comprehend the factors that are important for the so-called Clitic Doubling Parameter. In section 2 the interaction of focus with doubling is discussed. Finally, section 3 deals with matters of representation. In this section I also investigate the parallels between doubling constructions in Albanian and Greek and scrambling constructions in Germanic and discuss in some detail the internal structure of noun phrases. In addition, I provide an account of the phenomenon of specificity which rests on the distinction between individual and property denotation.

2. Preliminaries

Albanian and Greek are so-called free word order, null subject languages with rich morphology. Both languages have object pronominal clitics with distinct morphological inflections for accusative and dative or genitive² cases; both lack subject clitics. In Greek, clitics follow only gerunds and imperatives. In Albanian they may precede, follow, or be infixes in imperatives. In both languages, as in French, clitics immediately precede all other verb forms in both matrix and embedded clauses.³ The relative order of clitics is rigidly fixed for all combinations of person(s): dative or genitive followed by accusative. Clitic climbing is absent, as are infinitives which have historically been supplanted by the subjunctive form.⁴

Perhaps the most striking property of Albanian and Greek clitic doubling is the fact that it violates Kayne's generalization, which, informally stated, says that clitic doubling is possible whenever a noun phrase can get case by means of some nonverbal device that has Case-assigning properties, namely, prepositions.⁵ The Albanian and Greek examples below show that doubled DPs are not preceded by prepositions. In fact, prepositional objects may not be clitic doubled in these languages.⁶

In Albanian, dative DPs are invariably clitic doubled. In (1a) this applies to a definite expression, in (1b) and (1c) to an indefinite expression, in (1d) to a *wh*-dative, and in (1e) to a quantified dative. The opposition (1b) versus (1c) shows that dative clitic doubling is insensitive to so-called VP-internal scrambling of objects (cf. Massey 1991).

- (1) a. *Ev-a *(i) dërgoi An-ës lule.*
 Ev.the her-CL sent An.the flowers
 'Ev sent Ann flowers.'

- b. *Ben-i *(i) dërgoi një vajze lule.*
Ben.the her-CL sent a girl-DAT flowers
'Ben sent a girl flowers.'
- c. *Ben-i *(i) dërgoi lule një vajze.*
Ben.the her-CL sent flowers a girl-DAT
'Ben sent a girl flowers.'
- d. *Kujt *(i) foli mësues-i?*
who-DAT him/her-CL talked teacher.the
'Whom did the teacher talk to?'
- e. *Ben-i *(u) blen gjithë vajza-ve(t) lule.*
Ben.the them-CL buys all girls-DAT (the)flowers
'Ben buys all (the) girls flowers.'

In both Albanian and Greek, quirky subjects are invariably clitic doubled when marked for dative or genitive or for accusative Case. Examples are given under (2) and (3).

- (2) a. *Jan-it *(i) mungojnë dhjetë libra.* Alb
Jan.the-DAT him-CL.DAT miss-3PL ten books-NOM
- b. *Tu Yanni *(tu) lîpun dheka vivlia.* MGrk
the Janis-GEN him-CL.GEN miss-3PL ten books-NOM
'John is missing ten books.'
- (3) a. *Ben-in *(e) mërçit vetmia.* Alb
Ben.the-ACC him-CL.ACC bores solitude-NOM
'Solitude bores Ben.'
- b. *Ton Jání *(ton) ponái to kefáli tu.* MGrk
the Jánis-ACC him-CL.ACC hurts the head-NOM his
'Janis has a headache.'

The examples under (4) instantiate clitic doubling of direct object DPs.⁷

- (4) a. **(E) pashë Jan-in.⁸* Alb
him-CL saw-I the Janis
- b. **(Ton) idha ton Jani.* MGrk
him-CL saw-I the Janis
'I did see John.'

As indicated by the English translation, (4a) and (4b) cannot mean 'I saw John' (uttered as out-of-the-blue sentences or as sentences in which either the whole VP or the direct object DP is focused), which would be their meaning in the absence of the doubling clitic. As such, (4a) and (4b) are not felicitous answers to a question such as *Whom did you see?*, which they would be in the absence of the doubling clitic. In other words, clitic doubling of direct object DPs in Albanian and Greek is not an optional phenomenon, strictly speaking. For the

moment, let us just note this fact in passing; I will resume the discussion in detail in the next section.

The examples in (5) show that unlike doubling in Romance, doubling of direct objects in Albanian and Greek is not restricted to [+animate] or [+human] DPs.⁹ Nor is it restricted to [+definite] DPs.

- (5) a. *Do t-a pija me kënaqësi një uiski.* Alb
 FUT it-CL drink with pleasure a whisky
- b. *To pino exfaristos ena uiskáki.* MGrk
 it-CL drink with pleasure a whisky
 'I would gladly drink a whisky.'

It has been claimed for Greek that clitic doubling of direct object DPs is subject to *definiteness*, in the sense that only definite DPs may be clitic doubled (cf. Anagnostopoulou 1994).¹⁰ The example in (5b) (from Kazazis and Pentheroudakis 1976) is then a counterexample to this claim since the doubled DP here is clearly indefinite.¹¹ This counterexample is in fact acknowledged by Anagnostopoulou (1994.4, note 5), who writes:

At first sight, sentences like [5b] seem to contradict the view that Modern Greek doubling is subject to definiteness. Utterances like [5b] have a clear modal reading, the verbal form used is subject to various aspectual restrictions (imperfective aspect is systematically chosen: this type of aspect is typical of conditionals) and the clitics in them seem to have a kind of "sentential" function. These constructions are extremely interesting because the function of the clitics in them is not clear. However, they are, in many respects, different from the doubling constructions of the type examined here and, from this point of view, beyond the scope of the present discussion. The fact that the adverbial elements must be heavily stressed and that they typically precede the doubled DPs seems to indicate that structures like [5b] are right dislocations. Furthermore, note that examples of this type are only possible in "ordering-contexts" where it is quite common to use attributive definites instead of indefinites.

Let me point out several inaccurate claims in the quote. First, doubled indefinite DPs need not occur in constructions where the verb has imperfective aspect; the Greek example in (6) contains perfective aspect form. Secondly, adverbial elements do not necessarily precede the indefinite DPs, as (6) also shows. Thirdly, (6) shows that doubling of indefinite DPs is possible outside of "ordering contexts." Even if examples as in (5b) were only possible in ordering contexts, where it is claimed to be common to use attributive definites instead of indefinites, doubling should still be unexpected for Anagnostopoulou, who claims that attributive definites, as a subclass of novel definites, may not be clitic doubled in Greek.¹²

- (6) *Akoma ke i Ana katafere na to ekðosi*
 still and the Anna managed na it-CL publish-SUBJ
ena vivlio prin na peðani.
 a book before na die-SUBJ
 'Even Anna managed to publish a book before she died.'

Finally, I reject the idea that indefinite DPs may be clitic doubled only when they are right dislocated, as has been claimed by Anagnostopoulou for Modern Greek. The main argument against the view that clitic-doubled indefinites are exclusively right-dislocated phrases comes from the fact that just like clitic doubled definite DPs, they may occur in both languages in positions that are typically associated with θ marking and Case marking, that is, in A positions, such as ECM complements and subjects of small clauses, as in (7) and (8).¹³

- (7) a. *Jan-i e pret një gjë të tillë të ndodhë.* Alb
 Jan.the it-CL expects a thing such të happen-SUBJ
- b. *O Janis to perimeni kati tetjo na simvi.* MGrk
 the John it-CL expects something such na happen
 'John expects something like this to happen.'
- c. *Jan-i e pret Mer-in të ankohet* Alb
 Jan.the her-CL expects Mary.the-ACC të complain
- d. *O Janis tin perimeni tin Maria na paraponebi.* MGrk
 the John her-CL expects the Mary-ACC na complain
 'John expects Mary to complain.'
- (8) a. *Jan-i nuk e konsideron një vajzë* Alb
 Jan.the not her-CL consider a girl
të tillë/Mer-in inteligjente.
 such/Mary.the-ACC intelligent
- b. *O Janis ðen tin theori kamja tetja* MGrk
 the John not her-CL consider no such
kopela/tin Maria eksipni.
 girl//the Mary-ACC intelligent
 'John does not consider any such girl/Mary intelligent.'

It is thus my contention that clitic-doubling constructions of the type in (5b) do not differ from the doubling constructions involving doubling of definite direct object DPs other than with respect to the definiteness feature, which is irrelevant. The factors that determine clitic doubling of direct object DPs are the same irrespective of the [\pm definite] status of these DPs. In this way clitic doubling of direct object DPs emerges as a uniform phenomenon and should be treated as such.

The fact that both definite and indefinite direct object DPs may be doubled does not mean that they always can be. The data in (9) show that even definite DPs cannot be doubled invariably

- (9) *Do you walk to school or do you take the bus?*
- a. *Nuk shkoj në këmbë, (*e) marr autobus-in.* Alb
 not walk with feet, it-CL take the bus

- b. *đen pijeno me ta pođja, (*to) perno to leoforio.* MGrk
 not walk with feet, it-CL take the bus
 ‘I don’t walk, I take the bus (to school).’

The fact that the definite DPs in these examples cannot be doubled is problematic for the specificity, presuppositionality, familiarity, d-linking, and strength approaches to doubling (cf. Sportiche 1992, Anagnostopoulou 1994, Uriagareka 1995), if we assume with Enç (1991) and Diesing (1992) that all definites are specific, presuppositional, and strong. While the claim that all definites are specific will be challenged (cf. section 4.3.4), there are indisputably specific, presuppositional, and strong definites (and indefinites) that need not and/or cannot be doubled. The construction in (10) is a case in point.

(10) *What happened?*

- a. *Jan-i (#i) hëngri fasule-t/(#e) piu një birra.* Alb
 b. *O Janis (#ta) efaje ta fasolia/(#tin) ipje mia bira.* MGrk
 the Janis them-CL ate the beans/her-CL drank a beer-FEM
 ‘Janis ate the beans/drank a beer.’

Finally, *referentiality* of the doubled DP is also irrelevant for direct-object clitic doubling in Albanian and Greek. This is indicated by the fact that quantified expressions may also be doubled, as in (11).¹⁴ Note that doubling in Albanian and Greek does not suppress the attributive reading of definite DPs; the doubled DP in (12) may receive both a referential and a nonreferential or attributive interpretation.¹⁵

- (11) a. *An-a i urrente të gjithë jem-të.* Alb
 b. *I Ana ta misuse ola ta ayorja.* MGrk
 the Ann them-CL hated all the boys
 ‘Anna HATED all the boys.’
- (12) a. *I dua mace-t e vogla.* Alb
 them-CL love cats.the small
 b. *Tis ayapo tis mikres (tis) yates.* MGrk
 them-CL love the small (the) cats
 ‘I LOVE small cats.’

Having seen now that clitic doubling of direct object DPs in Albanian and Greek cannot be adequately described in terms of any of the features highlighted so far by various theorists as significant for the Clitic Doubling Parameter, let me turn to the identification of the factors that determine direct object clitic doubling in Albanian and Greek.

3. The non-optionality of direct object clitic doubling

A variety of facts converge to show that clitic doubling of direct object DPs¹⁶ systematically yields ungrammaticality when these DPs are focus or part of the

focus domain, that is, when they are marked [+Focus]. In this section, I show that clitic doubling of direct object DPs in Albanian and Greek unambiguously marks these DPs [-Focus].

3.1. Justifying [-Focus]

In defining the feature [-Focus], I will proceed indirectly by defining the notion *wh* first.

Informally speaking, focus is viewed as the most informative part of an utterance. Hence, a definition of focus is sensitive to the speech act and varies according to it. For instance, the notion *information* or *information structure* for a question does not make sense unless one defines information structure as the type of answer one expects (cf. Sperber and Wilson 1988). So, for *wh*-questions, focus is the variable represented by the *wh*-element; this also holds for *echo* questions. For a yes-no question focus is either the assertion (i.e., the given polarity) or the negation (i.e., the opposite polarity). Focus can also be an element that is contrasted. Finally, focus can be the item that fills in a slot in an information structure where other slots have already been filled. In this latter function, focus is close to the notion of new information. On the whole, the definitions above are quasi-collectively reflected in the following quote from Vallduví (1994:575): “focus, an informative, news-bearing, dominant, or contrary-to-expectation part”.¹⁷ The complement of focus is *topic*. Following a long-established tradition in generative grammar, I assume that focus is a syntactic feature on phrases interpretable at both the LF and the PF interfaces as [+Focus] (cf. Jackendoff 1972, Rochemont 1986, Horvath 1986, Brody 1990).

In view of the fact that a sentence may lack a topic (e.g., out-of-the-blue sentences) but will always have a focus, I assume that the [+Focus] feature is in fact the unmarked value in a markedness theory for natural language and that the [-[+Focus]] (or simply [-Focus]) feature is the marked value. Derivational syntax then renders this feature significant in terms of checking theory. I argue that clitic doubling is one of the means by which this feature gets licensed.

Consider the examples in (13).

- (13) a. *An-a lexoi libr-in.* Alb
 b. *I Ana ðjavase to vivlio.* MGrk
 the Ana read the book
 ‘Ann read the book.’

The undoubled Albanian example (13a) is a felicitous answer to either (14a) or to (14b), but not to (14c) or (14d).

- (14) a. *What did Ana do?*
 b. *What did Ana read?*
 c. *Who read the book?*

d. *What did Ana do to/with the book?*

The Greek example (13b) may be a felicitous answer to either of the questions under (14). However, (15b), the doubled version of (13b), is preferred as an answer to (14c) and (14d) even in Greek. Crucially, (15a) and (15b), focusich double (13a) and (13b), may in both languages only be a felicitous reply to (14c) and (14d) but not to (14a) and (14b). This latter fact suggests that direct object clitic doubling in Albanian and Greek is incompatible with direct object DPs that are marked [+Focus] (alternatively: are contained in focus domains).

- (15) a. *An-a e lexoi libr-in.* Alb
 b. *I Ana to ðjavase to vivlio.* MGrk
 the Ana it-CL read the book
 'Ann did read the book.'/'It was Ann who read the book.'

I devote the next two sections to a brief review of some recent ideas on the syntactic encoding of focus and to how focus interacts with clitic doubling of direct object DPs in Albanian and Greek.

3.2. Focus, *wh*-elements, and clitic doubling

Following Horvath (1988), Brody (1990) assumes that just as there is a feature *+wh*, which marks phrases as *+wh*-elements, there is a feature *+f* that indicates focushood;¹⁸ *+wh*-phrases are argued to be necessarily [*+f*] and the conditions on *+wh* and (*+WH*) CPs are generalized to the *+f* and F(ocus) P(hrase) so that they will entail (16), which may be regarded as a focus criterion. The unavoidable implication is that Rizzi's (1991) *Wh*-criterion is a subcase of the focus criterion and that the Specifier position of (root) CPs is one of the canonical positions for focus.

(16) (Brody 1990.208)

- a. At S-structure and LF the Spec of an FP must contain a *+f*-phrase
 b. At LF all *+f*-phrases must be in an FP.

Just as the corresponding notion on *+wh* CPs is parametrized, it is assumed that (16a) may or may not hold in a given language. Construction (16b), on the other hand, like the condition on *+wh*-elements, should be universal. Further, a distinction is drawn between *+* and *-wh* FPs.

If my claim is correct that direct object clitics license nonfocusing of the DPs they double, and if we assume with Brody (1990) that *+wh*-elements are necessarily foci, then clitic doubling of *+wh*-direct object DPs in Albanian and Greek is bound to yield ungrammaticality. The examples in (17) show that this is indeed the Case.

- (17) a. *Kë/çfarë (*e) pe?* Alb
 who/what-ACC it/him/her-CL saw-2SG

- b. *Pjon/ti* (*ton/to) *iðes?* MGrk
 who/what-ACC him/it-CL saw-2SG
 'Whom/what did you see?'

Direct object DPs in Albanian are obligatorily clitic doubled in constructions with *+wh*-subjects, as well as in yes-no questions, as shown in (18) and (19), respectively. Similar facts are reported for Greek by Agouraki (1993), who notes that in questions, either yes-no or *wh*-questions, a doubling clitic is strongly preferred.¹⁹ These facts are also predicted under my hypothesis that clitic doubling exempts direct object DPs from focus domains (that is, from phrases that are marked [+Focus]).

- (18) a. *Kush* *(e) *pa fëmijë-n?* Alb
 b. *Pjos* (to) *iðe to peðí?* MGrk
 who it-CL saw the child
 'Who has seen the child?'
- (19) a. (A) *(e) *pe Jan-in?* Alb
 [+Q]²⁰ him-CL saw Jan.the
 b. (Ton) *iðes ton Jani?* MGrk
 him-CL saw the Jani
 'Have you seen John?'
 (Agouraki 1993:170)

In (20a) and (20b) the whole VP is contrastively focused. Since the direct object here is part of the focus domain (i.e., is marked [+Focus]), it cannot be doubled.²¹

- (20) a. *An-a nuk* (*i) *zjeu fasule-t,* Alb
 the Ann not them-CL cooked the beans,
por (*i) *hëngri fiq-të.*
 but them-CL ate the figs
 b. *I Ana ðen* (*ta) *majirepse ta fasolia,* MGrk
 the Ann not them-CL cooked the beans,
ala (*ta) *efaje ta sika.*
 but them-CL ate the figs
 'Anna didn't [cook the beans]_F; she [ate the figs]_F.'

Likewise, direct object DPs in out-of-the-blue sentences may not be doubled, as the examples in (21) show.²²

- (21) *What happened here?*
 a. *Ben-i* (*e) *ka thyer termometr-in/një pjatë.* Alb
 Ben.the it-CL has broken thermometer.the/a plate
 '[Ben has broken the thermometer/a plate]_F'

- b. *O Janis (*ta) efaye ta fasolia/(*tin) ipje mia bira.* MGrk
 the Janis them-CL ate the beans/her-CL drank a beer-FEM
 '[Janis ate the beans/drank a beer]_F.'

Focus (i.e., a [+Focus] phrase) is most clearly brought out in association with so-called focus particles, such as *even* and *only*, otherwise referred to as "scalar particles" by Jacobs (1984) or as "focusing adverbs" by Rooth (1996). In the next section, I use this diagnostic to identify [+Focus] phrases and investigate the effects of their interaction with direct object clitic doubling.

3.3. More [+Focus] phrases and their interaction with doubling

In the examples under (22a/b) the direct object DP *Tiranën* is a [+Focus] phrase, as the English translation indicates.²³ As such, it cannot be clitic doubled either in Albanian or in Greek.

- (22) a. *Pap-a (*e) vizitoi madje Tiranë-n (jo vetëm Shkodrën).* Alb
 Pope.the it-CL visited even Tirana.the (not only Shkodra)
 b. *O Papas (*ta) episkeftike akoma ke ta Tirana* MGrk
 the Pope them-CL visited still and the Tirana
 'The Pope visited even [Tirana]_F (not only Shkodra)'

Likewise, the direct object DP in (23a) and (23b) cannot be clitic doubled, since it is marked [+Focus]. The fact that the direct object DP 'a beer' in (23) may not be clitic doubled is not related to its being [-definite]; the examples in (24) show that in both languages constructions involving doubled indefinites are fully grammatical if (and only if) the direct object is construed as outside the focus domain, a point made earlier in the discussion.²⁴

- (23) a. *Jan-i (*e) piu madje një birrë para se të shkonte.* Alb
 Jan.the it-CL drank even a beer before that të went-SUBJ
 b. *O Janis (*tin) ipje akoma ke nja bira*
 the Janis her-CL drank still and a beer-FEM
prin na fiji. MGrk
 before na went-SUBJ
 'John drank even [a beer]_F before he left.'

- (24) a. *Jan-i*(e) piu madje një birrë para se Alb*
 Jan.the it-CL drank even a beer before that
të shkonte (jo vetëm e porositi).
të went-SUBJ (not only it-CL ordered)
 'John even [drank]_F a beer before he left (not only did he order it).'

- b. *O Janis ?(tin) IPJE mja bira prin na fiji.* MGrk
 the Janis her-CL drank a beer-FEM before na went-SUBJ
 'John [DID drink]_F a beer before he left (he didn't just order it)'

Similarly, the clitic-doubled versions of the sentences in (22) are grammatical under an interpretation in which the direct objects are construed outside the focus domain; in these Cases, doubling is indeed obligatory in Albanian. This is shown in (25).

- (25) a. *Pap-a *(e) vizitoi madje Tiranë-n.* Alb
 Pope.the it-CL visited even Tirana-the
- b. *O Papas os ke ?(ta) episkeftike ta Tirana.* MGrk
 the Pope till and them-CL visited the Tirana
 'The Pope even [visited]_F Tirana.(i.e., 'As for Tirana, the Pope even visited it.')

The clitic-doubled versions of the objects in (22) also become grammatical if the subject DP is marked [+Focus], a fact indicated in the examples in (26) by the focus particles in front of the subject DP.²⁵

- (26) a. *Madje Pap-a *(e) vizitoi Tiranë-n.* Alb
 even Pope.the it-CL visited Tirana.the
- b. *Akoma ke o Papas (ta) episkeftike ta Tirana.* MGrk
 still and the Pope them-CL visited the Tirana
 'Even [the Pope]_F visited Tirana.'

The data thus systematically reveal that clitic doubling of direct object DPs that are marked [+Focus] or are contained in [+Focus] phrases is disallowed in Albanian and Greek. The question then arises as to whether the function of direct object doubling clitics is to license verb and subject focusing or object nonfocusing. The fact that verb and subject focusing may still be achieved in intransitive constructions decides the issue in favor of the latter alternative.

In sum, we may state that clitic doubling of direct object DPs in Albanian and Greek is not optional: [+Focus] DPs cannot be clitic doubled.

Thus, direct object clitics in Albanian and Greek have interpretive import; they mark the DPs they double as unambiguously [-Focus], which is interpreted as an operator feature.²⁶ In this respect, direct object clitic doubling in Albanian and Greek is different from clitic doubling in Spanish, which does not necessitate a [-Focus] reading (cf., e.g., (27) from Porteño Spanish), but strongly reminiscent of so-called clitic right-dislocation structures in French, Spanish, and Italian, which are incompatible with [+Focus] phrases.

- (27) *La nombraron a Maria.*
 her nominated-3PL a Maria
 'They nominated MARIA.'
 (Suñer 1988.419)

However, the fact that clitic-doubled DPs may in Albanian and Greek occur in positions where adjuncts are simply not tolerated, as was shown in section 2 (cf., e.g., (7) and (8)), ultimately rules out a right-dislocation approach to these constructions. Further evidence can be adduced to this effect. For instance, if the doubled direct object DPs in Albanian were indeed right dislocated, a [+Focus] phrase to the right of a right-dislocated direct object would be precluded. This prediction is, however, not borne out, as the example in (28) demonstrates.

- (28) *I -a dhashë libr-in BEN-IT.* Alb
 him-CL it-CL (I) gave book.the-ACC BEN.the-DAT
 'I gave the book to BEN.' (i.e., 'It was BEN that I gave the book to.')

The question then remains whether the Albanian and Greek doubling constructions constitute yet a third type of clitic construction, with properties distinct from those of the two others, that is, clitic-doubling constructions in Spanish and Romanian on one hand and clitic right dislocation constructions in Romance on the other, or whether it can subsume or be subsumed in either of the two. To address this question one has to look at all the properties of the other two constructions in detail as well. Such a task is, however, well beyond the scope of this study.

Direct object clitic doubling in Albanian and Greek is also strongly reminiscent of scrambling of direct objects in Germanic (cf. Webelhuth 1989), as will be more thoroughly discussed in section 4.2.

3.4. Summary

In concluding this section, it may be stated that direct object doubling clitics in Albanian and Greek are characterized by the fact that they have (1) restricted distribution, and (2) operatorlike properties. Both of these properties suggest that direct object doubling clitics in these languages cannot be treated as mere object agreement markers, that is, as spell-outs of, for example, AgrO heads. Yet, there is little doubt that clitic doubling is a form of agreement between an X^0 and an XP, namely the clitic head and the DP it doubles and with which it agrees in ϕ features. The next section is devoted to how this cluster of properties can be best represented.

4. Issues of representation

4.1. Spec-head licensing, feature checking, and doubling

The view that accusative clitics mark the DPs they double as [-Focus] may be implemented structurally in terms of the theory of Spec-head licensing (cf. Chomsky 1995), if we assume with Sportiche (1992) that a clitic heads its own maximal projection in whose specifier position it licenses a particular property or feature F .²⁷ For the derivation to converge, this feature has to be saturated or

checked off (cf. Chomsky 1995). Since features may be checked off only in Spec-head configurations, the (doubled argument) XP^* in (29) must by LF move to the XP^\wedge position as to obtain the relevant Spec-head configuration.

$$(29) \quad [Cl_{acc}P \quad XP^\wedge \quad Cl_{acc}^0 [VP \quad V^0 [XP^* \dots]]]$$

In Sportiche's terms, movement of XP^* to the XP^\wedge position is motivated by the clitic criterion, an analog of Rizzi's (1991) *Wh*-criterion, and yet another instantiation of the so-called generalized licensing criterion, according to which feature licensing may only obtain in Spec-head configurations. Further, movement of XP^* to XP^\wedge may occur overtly or covertly, and both the head (Cl) and XP^* may be overt or covert. By these parameters, among others, the following cases are predicted: (a) clitic-doubling constructions (as in Romance and Balkan languages) when an overt XP^* moves covertly with an overt Cl, and (b) scrambling (in Germanic) when an overt XP^* moves overtly with a covert Cl.

As for direct object clitic constructions, Sportiche claims that the property the clitic head licenses in the specifier of the phrase it heads is invariably *specificity*, irrespective of whether the direct object clitic is overt (as in doubling constructions) or covert (as in scrambling constructions). As discussed above, this cannot possibly be the Case for Albanian and Greek direct object clitics. The feature that Albanian and Greek direct object clitics license in the specifier of the phrase they head is what was defined in section 2 as [-Focus]. According to the theory of Spec-head licensing, for the derivation to converge, the feature values on the clitic head and those of the DP in its specifier must match. Since the attracting feature is [-Focus], a clitic-doubled [+Focus] direct object DP would invariably cause the derivation to crash. In this way, doubling of [+Focus] direct object DPs is of necessity ungrammatical.

While the idea that the same syntactic configuration underlies both doubling and scrambling constructions is desirable conceptually and attractive theoretically (cf. Chomsky 1995), I argue that the property F, whose need to be licensed motivates the postulated maximal projections (that is, Sportiche's CIP(s) or voice phrases), is identified incorrectly by Sportiche. In section 3, I demonstrated that the feature that Albanian and Greek direct object clitics license on the DP they double is not specificity but topichood. In the next section I show that this is also the Case for Germanic scrambling.²⁸

4.2. Parallels with scrambling

Like doubling of direct objects in Albanian and Greek, scrambling of direct objects in Germanic applies both to definite DPs and to a-expressions. That is, the [\pm definite] feature of the DP is not relevant for scrambling. This is illustrated in (30b), (31b) and (32b).

- (30) a. *Anna hat gestern das Buch gelesen.* Germ
 Anna has yesterday the book read

- b. *Anna hat das **Buch** gestern gelesen.*
 Anna has the book yesterday read
 'Ann read the book yesterday.'
- (31) a. *Ich habe gestern eine Zeitung gelesen.*
 I have yesterday a newspaper read
 b. *Ich habe eine Zeitung gestern gelesen.*
 I have a newspaper yesterday read
 'I read a newspaper yesterday.'
- (32) a. *dat de politie gisteren een kraker opgepakt heeft* Dutch
 that the police yesterday a squatter arrested has
 b. *dat de politie een kraker gisteren opgepakt heeft*
 that the police a squatter yesterday arrested has
 (de Hoop 1992:50)

It was shown in section 1 that definite direct object DPs cannot always be doubled. The data in (33) and (34) show that neither can they always scramble. This fact is problematic for the specificity-, presuppositionality-, and strength-related approaches to scrambling (cf. Sportiche 1992, Diesing 1992, de Hoop 1992, among others). If we assume with Enç (1991) and Diesing (1992) that all definites are specific, presuppositional, and strong. While the claim that all definites are specific will be challenged (cf., section 4.3.4), there are unequivocally specific, presuppositional, and strong definites (and indefinites) that cannot scramble (cf., e.g., (35)). Hence, scrambling emerges even in these analyses as an optional phenomenon.

- (33) *Er sagte, daß er nicht zu Fuß in die Schule geht, sondern* Germ
 he said that he not on feet in the school walks, but
 a. *daß er immer den Bus nimmt.*
 that he always the bus takes
 b. **daß er den Bus immer nimmt.*
 that he the bus always takes
 'He said that he doesn't walk to school but always takes the bus.'
- (34) a. *dat ik altijd de bus neem* Dutch
 that I always the bus take
 b. **dat ik de bus altijd neem*
 that I the bus always take
 (Reinhart 1996:4)
- (35) *What happened?*
 a. *Hans hat heute das Thermometer/einen Teller zerbrochen.* Germ
 Hans has today the thermometer/a plate broken

- b. #*Hans hat das Thermometer/einen Teller heute zerbrochen.*
 Hans has the thermometer/a plate today broken
 'Hans broke the thermometer/a plate today.'

It is easy to notice in the (grammatical) examples above that the direct object DPs are marked [+Focus]. I propose that this is why these DPs cannot undergo scrambling.²⁹ Further evidence that can be adduced to this effect is the fact that +*wh* direct object DPs cannot scramble, as (36) shows.

- (36) a. *Wem hat der Student welche Frage beantwortet?* Germ
 whom has the student which question answered?
 b. **Wem hat welche Frage der Student beantwortet?*
 whom has which question the student answered
 'To whom did the student answer which question?'
 (Sternefeld 1990)

Consider now the German examples in (37):

- (37) *Hat der Papst Tirana endlich besucht?*
 has the Pope Tirana finally visited
 'Did the Pope finally visit Tirana?'
 a. *Der Papst hat Tirana noch immer nicht besucht.*
 the Pope has Tirana yet always not visited
 'The Pope has not visited Tirana yet.'
 b. #*Der Papst hat noch immer nicht Tirana besucht.*
 the Pope has yet always not Tirana visited
 'The Pope has not visited Tirana yet.'

The examples in (37) show that scrambling of direct objects is obligatory in German is obligatory in anaphoric contexts, such as yes-no questions. This can be accounted for in a straightforward manner under my hypothesis that scrambling of direct object DPs licenses a [-Focus] feature or topichood on these phrases, since anaphoricity is a way of identifying topics (cf., Reinhart 1996). As was pointed out in section 3.1, for yes-no questions (and answers to yes-no questions) focus is either the assertion or the negation of the event expressed by the verb, whereas direct-object arguments are outside the focus domain. That is, they are not marked [+Focus]. Consequently, there is no feature clash between the (covert) clitic head and the scrambled DP in the specifier of the $Cl_{acc}P$ in the diagram in (29) with respect to the feature [\pm Focus]. Therefore the derivation will converge (provided that the covert clitic head and the XP^* do not mismatch with respect to other features). Note that the specificity, presuppositionality, and strength approaches to scrambling cannot account for the fact that scrambling of direct objects in answers to yes-no questions is obligatory, since 'Tirana' as a proper noun is also referential specific in the unscrambled version.

While definite and indefinite DPs with overt determiners may be doubled and scrambled, bare indefinites cannot. For bare plurals this is shown in (38); doubled and scrambled bare plurals are ungrammatical in any contexts.³⁰ Constructions (39a)-(39c) show that this also holds for count bare singular direct objects.³¹

- (38) a. *An-a nuk (*i) zjeu fasule,* Alb
 the Ann not them-CL cooked beans,
*por (*i) hëngri fiq.*
 but them-CL ate figs
- b. *I Ana ðen (*ta) majirepse fasolia,* MGrk
 the Ann not them-CL cooked beans,
*ala (*ta) efaje sika.*
 but them-CL ate figs
- c. *Anna hat nicht Bohnen gekocht,* Germ
 Anna has not beans boiled
sondern sie hat Feigen gegessen.
 but he has figs eaten
- d. **Anna hat Bohnen nicht gekocht,*
 Anna has beans not cooked
sondern sie hat Feigen gegessen.
 but she has figs eaten
 ‘Anna didn’t [cook beans]_F; she [ate figs]_F.’
- (39) a. *An-a donte t-(*a) blente fustan.* Alb
 b. *I Ana iþele na (*tis) ayorasi forema.* MGrk
 the Ann wanted na/të (*her-CL) buy dress
 ‘Anna wanted to buy a dress.’
- c. *Ich habe (*Zeitung) nicht/im Garten (Zeitung) gelesen.* Germ
 I have newspaper not/in the garden (newspaper) read
 ‘I have not read a newspaper.’/‘I have read a paper in the garden.’

vs.

- a’. *An-a donte t-(a) blente një fustan.*
 b’. *I Ana iþele na (tis) ayorasi ena forema*
 the Ann wanted na/të her-CL buy a dress
 ‘Anna wanted to buy a dress.’
- c’. *Ich habe (eine Zeitung) nicht/imGarten (eine Zeitung) gelesen*
 I have (a newspaper) not/in the garden (a newspaper) read
 ‘I have not read a paper.’/‘I have read a paper in the garden.’

Constructions (39a) and (39b) are ungrammatical when the bare singular objects are doubled in spite of the fact that the clitics and the direct object bare singulars

here agree in ϕ features (that is, in number, person, and gender, since bare singulars, like a-expressions, are not marked for morphological Case in Albanian and Greek).³²

The question arises as to why bare indefinites cannot be doubled or scrambled. I will approach this question by considering first why bare singulars cannot be doubled or scrambled.³³ To the extent that this question has been addressed at all, bare singulars have been treated as forming a complex predicate with the clausal predicate (cf. Haiden 1996), that is, as incorporating semantically. While this might seem intuitively correct, the fact that count bare singulars need not be adjacent to the clausal predicate but may be moved to Spec of CP, as in (40), shows that this semantic incorporation does not result from syntactic incorporation of the bare singular into V.³⁴

- (40) a. *Fustan doja të bleja.* Alb
 dress wanted të buy
 'It was a dress that I wanted to buy.'
- b. *Zeitung habe ich gestern gelesen.* Germ
 newspaper have I yesterday read
 'It was a newspaper that I read yesterday.'

I propose that the impossibility of doubling and scrambling bare singulars is due to feature mismatch between the clitic head and the direct object bare singular with respect to the D feature; while clitics carry a D feature (cf. Emonds, to appear, Uriagareka 1995), bare singulars are NPs that altogether lack a D projection. Clitics are listed in the lexicon as separate morphophonological units. That clitics carry a D feature (alternatively: are specified in the lexicon as elements of category D^0) or are underlying determiners (cf. Postal 1969, Raposo 1997) is not surprising, in view of the fact that they originate from personal and demonstrative pronouns that are prototypical D heads (cf., Abney 1987 and subsequent literature). This means, among other things, that only DPs but not NPs may be doubled and scrambled, since the $[-D]$ feature of the latter will clash with the $[+D]$ feature on the clitic head, thus causing the derivation not to converge. This reasoning, however, rests on the assumption that bare singulars are NPs that lack a D projection. This is problematic, as it seems to run counter to Longobardi's (1994) that only DPs but not NPs may function as arguments, his idea being that bare noun objects have a morphologically null D head. Therefore, the assumption that bare singulars are NPs and not DPs with a morphologically null D is in need of some justification. Is there any evidence that legitimizes the claim that bare singulars lack a D projection? In what follows, I will argue that there is.

First, note that bare singulars occur only as predicate nominals and as direct objects. Crucially, they cannot occur as subjects.³⁵ Further, bare singulars do not occur as direct objects of just any predicate; they may occur as direct objects of only those predicates whose bare plural direct objects cannot get a generic interpretation (in the sense of referential or kind denoting) but get only an existential interpretation.³⁶ This fact alone raises an important question, namely:

What are the factors that govern the distribution of bare singulars? The importance of addressing this question is twofold. On one hand, it relates to the study of bare singulars. On the other hand, it also relates to the study of bare plurals, given the distributional parallels in languages between the bare singulars and the existential bare plurals. Regarding the factors that govern the distribution of bare singulars, I claim that they are semantic in nature. However, on the assumption that a given syntactic construction cannot be systematically ambiguous, my basic working hypothesis is that semantic interpretations for noun phrases are fundamentally dependent on their internal structure. From this perspective, I crucially claim that whereas DPs may be either arguments or predicates, NPs translate as predicates at LF irrespective of whether they occur as predicate nominals or as direct objects. Consequently, they do not translate as variables or restricted modifiers. For bare singulars (and existential bare plurals), this amounts to the claim that they are predicates, not arguments. In other words, while subjects are always DPs (since they are arguments, not predicates), direct objects (and predicate nominals) may be either DPs or NPs. That is, direct objects are not always arguments; they can be predicates. Thus, I claim that count bare singulars cannot be doubled or scrambled because they are not arguments but predicates: they denote properties, not individuals, and therefore translate as predicates, not as variables or restricted quantifiers at LF. Drawing on work by Zimmerman (1993), I argue that most natural language predicates can take both individuals and properties as their internal arguments (cf. also van Geenhoven 1996).

In the next section, I show that it is precisely in terms of the distinction individual versus property denotation that the distinction specific versus nonspecific for noun phrases should be understood. Count bare singulars provide an excellent tool for this. A discussion of the phenomenon of specificity is essential for this study, as I intend to show that specificity cannot be bestowed on an argument by a clitic and to demonstrate eventually that specificity-related effects in clitic doubling and scrambling constructions arise only as an epiphenomenon, since argumenthood for noun phrases is defined by specificity.

4.3. Specificity, individuation, and argumenthood³⁷

4.3.1. The meaning of bare singulars

The a-expressions *një fustan* in (39a') and *ena forema* in (39b') might denote:

- (41) a. some particular dress that Ann has seen on some display
 b. some particular kind of dress (e.g., some Dior vs. some Versace dress)
 c. some/any object that is classified as a dress; that is, any dress at all

With respect to specificity, the (41a) and (41b) readings are both specific readings and can be continued by (42):³⁸

(42) *She may find it in 'The House of Fraser.'*

Only the (41c) reading is nonspecific and (42) is not an appropriate continuation for it. One could continue the (41c) reading as in (43):

(43) *She may find one in 'The House of Fraser.'*

Importantly, the bare singulars *fustan* in (39a) and *forema* in (39b) cannot refer to some particular dress or to some particular kind of dress. So the bare singulars in (39a) and (39b) lack the readings given under (41a) and (41b) that obtain for the a-expressions in (39a') and (39b'). This means that the bare singulars in (39a) and (39b) may not receive specific interpretations. Thus, a-expressions and bare singulars are not fully synonymous; they are so only on the nonspecific readings of the former.

As Ioup (1977) points out, certain inferences follow on a specific reading that are invalid on a nonspecific reading. On the specific readings (41a) and (41b), the existence of the items referred to by the a-expressions is presupposed. On (41a) and (41b) the sentence in (44) will be true.

(44) *There is a certain dress that Ann wants to buy.*

No existence claims follow from the nonspecific reading in (41c); that is, (44) is not a valid inference from (41c). Instead, we can paraphrase (41c) as in (45):

(45) *Ann wants there to be some dress or other that she can (find and) buy.*

Thus, what Ann is interested in (in (39a) and (39b)) is some individual or other that embodies a certain property, namely that of being [+dress] and not, say, [+book]. The identity of the item that Ann wants, beyond its being [+dress], is irrelevant here. Assuming that properties do not exist outside individuals (that is, that properties are not ontological primitives), Ann is interested in some individual or other that has the property [+dress]. But, each individual that has the property [+dress] has in addition at least one other property that makes it distinct from other individuals that have the same property [+dress]. The very existence of distinct individuals possessing the same basic property (here: [+dress]), which makes them be regarded as members of the same class (here: the class of dresses), is due to the existence of at least one distinct property. Being a distinct individual itself is a property. These other properties of individuals, beyond the property [+dress], are not only irrelevant to Ann in (39a) and (39b), but indeed cannot be expressed by the bare singulars here. The bare singulars in (37a) and (37b) do not denote individuals but properties, which is why (39a) and (39b) get an event-related reading, which may be paraphrased as in (46):

(46) *Ann wants to engage/is interested in dress buying.*

It is, then, my contention that while direct object a-expressions may denote individuals, direct object bare singulars may not; the latter invariably denote

properties. The distinction between properties and individuals may be represented as in (47):

(47) P versus $P \cap p_i$

(where P is the fundamental property that identifies individuals as members of the same class and p_i is a property that does not contradict P)

It is by now a well-established view in the semantic literature that specific readings are presuppositional and nonspecific readings are not (cf., Enç 1991, Diesing 1992). The hypothesis that bare singulars are property-denoting expressions, that is, predicates, can account for the fact that they are not presuppositional by assuming that presupposition is about saturated structures, that is, about individuals (and propositions), not about properties. It follows, then, that specificity involves individuation; individual-denoting expressions are always specific irrespective of the fact that they may be used referentially or attributively. On the other hand, property-denoting expressions are nonspecific. Since arguments are saturated structures, noun phrase arguments denote individuals, that is, are specific.

In sum, on their specific reading noun phrases always denote individuals, not properties. Individuals translate as arguments (they are saturated structures), never as predicates at LF. Therefore, noun phrase arguments are always specific (irrespective of the fact that as such they may be used referentially or attributively). On their nonspecific reading, noun phrases invariably denote properties, not individuals. Properties translate as predicates at LF; they are unsaturated structures. Bare singulars are nonspecific (read: property denoting); they are LF predicates.

Given that direct objects may be instantiated by bare singulars, which invariably denote properties, it follows that direct objects are not always arguments; they may also be predicates. I claim that when direct objects denote properties, not individuals (i.e., when they are predicates, not arguments), doubling and scrambling cannot apply to them.

Consider the examples under (48) and (49).³⁹ In (48), the bare singular *piano* is a predicate, not an argument. Therefore it cannot scramble past the high adverb *probably*. In (49) *piano* occurs to the left of the adverb. Yet, the meaning of (49) suggests that *piano* is a predicate here as well, as indicated by its English translation. Observe, however, that here the predicate (namely *play* or *take*) that selects *piano* as its internal argument is deleted at PF; that is, no adverbial intervenes between the bare singular *piano* and the predicate whose internal argument it is. Note also that *piano playing* or *taking piano lessons* is a gerundive argument of the clausal predicate *find*. As such, it may scramble.

- (48) *dat Jan (*piano) waarschijnlijk (piano) speelt* Dutch
 that Jan piano probably piano plays
- (49) *dat Jan (piano) waarschijnlijk (piano) leuker*
 that Jan piano probably piano nicer

zal vinden dan viol.
 will find than violin

'that Jan will find playing the piano/taking piano lessons nicer than playing the violin/taking violin lessons.'

A striking property of bare singulars is that they invariably take (existential) narrow scope in the presence of other scopal items in the sentence. Thus, the Albanian sentence in (50a) has only the reading in (50b) but lacks the reading in (50c) where the bare singular has scope over negation.

- (50) a. *Nuk dua biçikletë.*
 not want-I bicycle
 'I don't want a bicycle.'
- b. *It is not the Case that I want a bicycle.*
- c. *#There is a bicycle that I don't want.*

Likewise, the Albanian sentence in (51), unlike its English translation, can only mean that the correspondence of people and bicycles is one to one. That is, (51) cannot mean that a bicycle was such that it was bought by many people.

- (51) *Shumë fëmijë blenë biçikletë dje.*
 many children bought bicycle yesterday
 'Many children bought a bicycle yesterday.'

The data in this section unequivocally show that bare singulars cannot take wide scope. In this respect, they differ both from definite descriptions and from *a*-expressions, which may, though need not, take wide scope. This observation immediately reminds one of Carlson's (1977) observation that the English bare plural always takes narrow scope with respect to negation. He accounts for this by suggesting that the existential force of the bare plural in nongeneric contexts comes from a source external to the bare plural itself, namely from the verb. I adopt this proposal for bare singulars as well.⁴⁰

What, then is, the relation between count bare singulars and bare plurals? I address this question in the next section.

4.3.2. *On the relation of count bare singulars to bare plurals*

Recall from section 2 that bare plural direct objects cannot be clitic doubled in Albanian and Greek. For the explanation that I will propose for this phenomenon, it is essential to point out the distinction between generic and existential bare plurals (cf. Carlson 1977). This distinction, which holds across Germanic languages, does not, however, hold for Balkan languages. In Balkan languages, generic readings are incompatible with bare plurals. Bare plurals in these languages can only have an existential interpretation. The same holds for Romance bare plurals (cf. Laca 1990, Longobardi 1994). Thus, individual-level predicates, which, as is well known, force generic readings on their direct

objects, are in these languages incompatible with bare plurals. Examples are *love*, *respect*, *admire*, *adore*, and so on. Generic readings in Balkan (and Romance) languages require an overt determiner, namely, the definite determiner for plural noun phrases and either the definite or the indefinite determiner for singular noun phrases.

My proposal rests on the claim that generically and existentially interpreted bare plurals differ with respect to the D feature: generic bare plurals are DPs with a morphologically null D, whereas existential bare plurals are NPs altogether lacking a D projection. Consequently, generic and existential bare plurals differ with respect to their specificity feature: generic bare plurals are [+specific] and individual denoting, whereas existential bare plurals are [-specific] and property denoting.⁴¹

What does it mean for generic bare plurals to be individual denoting? It means that generic bare plurals denote kinds (in nonquantified contexts), as in *I love dogs*, or (in quantified contexts) denote (quantified) instantiations of kinds, as in *(Most) dogs are clever*. This means that generic bare plurals are either constants or variables depending on whether they name a kind or (in quantified contexts) denote instantiations of it. I claim that existential bare plurals, on the other hand, denote properties. As such, they are not constants or variables but predicates. I argued above that bare singulars denote properties as well.

What, then, is the difference (if any) between bare singulars and existential bare plurals, given that all languages that have bare singulars also have existential bare plurals? While both (52a) and (52b) necessarily have an event-related reading, it seems to me that the difference between bare singulars and existential bare plurals has to do with event reference. Thus, while the meaning of the sentence in (52a) can be rendered as in (52c) or (52d), the minimally different (52b) containing a(n existential) bare plural instead of the bare singular can be rendered as in (52d), not as in (52c). Thus, (52a) can, though need not, be synonymous with (52b), whereas (52b) can only mean that Eva might engage in several events of newspaper reading. Strictly speaking, there is no “small” event in which a person can read more than one newspaper at a time. Hence, it is as if the bare plural in (52b) would scope over the whole VP.⁴² Whether this is an instance of genuine wide scope of the bare plural or some kind of a pseudoscope effect this paper will not contribute to assessing.

- (52) a. *Eva will morgen Zeitung lesen.*
 Eva will tomorrow newspaper read
 b. *Eva will morgen Zeitungen lesen.*
 Eva will tomorrow newspapers read
 c. *Tomorrow Eva will engage in (at least) one newspaper-reading event.*
 d. *Tomorrow Eva wants to engage in several events of newspaper reading.*

I claim that existential bare plurals are the plural counterparts of bare singulars. On one hand, the fact that bare singulars occur as direct objects of only those

predicates whose bare plural direct objects cannot get a generic interpretation supports this claim. On the other hand, however, the reverse does not hold across all the languages that have bare singulars in object position. German is a Case in point. However, in view of the fact that the meaning of bare singulars is a subset of the meaning of a-expressions (cf. the discussion in section 4.3.1), and since they also share the meaning of existential bare plurals, it is reasonable to try to relate the lack of (one to one) distributional parallelism between bare singulars and existential bare plurals within and across languages to economy considerations.

If existential bare plurals are the plural counterparts of bare singulars, they should have the same clausal distribution, among other things. At first sight, this prediction seems to be falsified by data as in (53).

- (53) *Studenten lärmen auf der Strasse*
 students make noise in the street
 'Students are making noise in the street.'⁴³

I suggest, however, that 'Studenten' in (53) under its existential interpretation (though not under its generic interpretation) is a predicate nominal in some specifier position of the CP domain (possibly derived from a cleft construction), as given in (54).

- (54) [_{CP} *Studenten lärmen*;_j [_{IP} [_{VP} *t_j* [_{PP} *auf der Straße*]] *t_j*]]

Crucial evidence for this view comes from another Germanic language, Norwegian. Hellan (1986) observes that in Norwegian, adjective phrases (APs) in predicative position agree in gender and number with their subject. In (55), however, they do not: the predicative adjective is marked for neuter gender and singular number, while the noun is masculine and can be either singular or plural. If the bare noun in (55) were really the subject of the sentence, this construction would be a counterexample to the theory of agreement.⁴⁴

- (55) a. *Bil er dyr-t.*
 car-MASC.SG is expensive-NEUT.SG
 b. *Biler er dyr-t.*
 car-MASC.PL are expensive-NEUT.SG
 (Hellan 1986.95)

I propose that the NPs *bil/biler* 'car/cars' in (55a) and (55b) are not the subjects of the sentences but occupy Spec of CP, and that (55a) and (55b) are derived from constructions like the ones given in (56a) or its variant (56b).

- (56) a. *Bil/biler er dyr-t å ha.*
 car/cars is expensive-NEUT.SG to have
 'To have a car/cars is expensive.'
 b. *Å ha bil/biler er dyr-t.*
 to have car/cars is expensive
 'To have a car/cars is expensive.'

In this section I have argued that just like bare singulars, existential bare plurals are not DPs with a morphologically empty D, but NPs that lack a D projection. As such, they cannot be doubled (in Albanian and Greek) or scrambled (in German and Dutch). On the other hand, generic bare plurals are DPs with a morphologically empty D. They are always specific (read: individual denoting). As such, they can scramble unless they are marked [+Focus].⁴⁵

The syntactic distinction NP versus DP (with morphologically null D) that I have drawn between existential and generic bare plurals, respectively, in addition to representing a principled mapping between syntax and semantics, is also motivated by the (morphological) fact mentioned above, namely, that generic plural nominals in Balkan (and Romance) languages necessarily require the presence of the definite determiner.

4.3.3. Definite expressions

Consider the example in (57):

(57) *I shall kiss the first woman to enter this room.*

In line with what was stated in section 4.3.1, the definite expression in (57) also is specific, though it may have both a referential and an attributive reading, depending on whether or not the speaker knows beforehand who the first woman to enter the room will be. In other words, the definite expression in (57) may denote either a particular individual in relation to the speaker, namely, the type of ‘first woman to enter the room’, as opposed to, say, the type of ‘second woman to enter the room’, or the type of ‘no woman to enter the room’. The type of ‘first woman to enter the room’ is an individual with respect to the concept or property ‘woman’. So, independently of whether the definite expression is intended to refer or not, it is specific, which also accords with Eng (1991).

The question arises, however, as to whether definite noun phrases in direct object position can ever be predicates, that is, denote properties (like bare singulars and a-expressions on nonspecific reading). I will argue that they can. Examples are definite noun phrases in object position in set expressions like *take the bus* in (58a), *play the violin* in (58b).⁴⁶

- (58) a. *I like to take the bus.*
 b. *Ben has played the violin beautifully at times.*

It is true that the definite expression *the bus* in (58a) may have both a referential-specific and an attributive-specific reading (as paraphrased in (59a) and (59b)) but what is important to note is that it also has a nonspecific reading, as paraphrased in (59c). Likewise, *the violin* in (58b) also has a nonspecific reading which may be paraphrased as in (60).

- (59) a. *There is a bus vehicle, always the very same, that I like to take.*

- b. *There is a bus line that I like to take.*
 c. *I like to travel by bus (I don't like to walk, drive, take the train, or fly).*

(60) *Ben is a talented violin player.*

The fact that not only indefinite expressions but also definite expressions may have both a specific and a nonspecific reading constitutes a counterexample to the claim that all definites are specific (cf. Enç 1991). It suggests that the class of definite expressions is far from homogeneous semantically (cf. also Vergnaud and Zubizarreta 1992). Above I argued that specific readings arise when noun phrases denote individuals and nonspecific readings when they denote properties. Note, however, that both a-expressions and definite expressions may only be interpreted nonspecifically when they occur as predicate nominals or as direct objects (sometimes also as objects of certain prepositions), but not when they occur as subjects. That subjects invariably denote individuals when they are instantiated by noun phrases should not be a matter of controversy in a framework like Principles and Parameters.⁴⁷

The fact that bare singulars are synonymous with a-expressions on their nonspecific reading only suggests that a-expressions are potential designators of either properties or individuals (that is, a-expressions may be predicates or variables). However, postulating that a-expressions are intrinsically ambiguous as to a specific (read: individual-denoting) and a nonspecific (read: property-denoting) interpretation (that is, correspond to two distinct logical types, viz. $\langle e \rangle$ versus $\langle e, t \rangle$) cannot explain in any principled manner why (1) a-expressions occurring as subjects and datives lack a nonspecific (i.e., property-denoting) interpretation and (2) the ambiguity specific versus nonspecific for a-expressions arises only when they occur as direct objects of certain predicates (e.g., *want, buy, draw, hunt, smoke, find, get*, etc.) but not of certain others (e.g., *love, hate, admire, adore*, etc.). These facts can be accounted for if we assume that many (and perhaps most, though not all) natural language predicates of type $\langle e, \langle e, t \rangle \rangle$ (e.g., *buy*) can be raised to type $\langle \langle e, t \rangle, \langle e, t \rangle \rangle$, meaning:

(61) $\lambda P \lambda x \exists y [P(y) \wedge \text{BUY}(x, y)]$

This means that certain predicates that take individuals as their internal arguments may also take properties as their internal arguments. In addition, we need to assume that the dual nature of a-expressions is due to their lexical underspecification with respect to specificity (i.e., individual versus property denotation). Hence they can oscillate between type $\langle e \rangle$ and $\langle e, t \rangle$. But in view of the fact that definite noun phrases as well may be interpreted nonspecifically or predicatively when they are objects of verbs and prepositions, we need to assume that the-expressions are also underspecified with respect to individual versus property denotation and can therefore oscillate between types $\langle e \rangle$ and $\langle e, t \rangle$. To generalize, we may then state that while NPs (e.g., bare singulars and existential bare plurals) are unambiguously type $\langle e, t \rangle$, DPs may be of type $\langle e \rangle$ or $\langle e, t \rangle$.⁴⁸

Consider the examples in (62):

- (62) a. *weil ich morgen den Bus nehme.* Germ
 because I tomorrow the bus take
- b. *weil ich den Bus morgen nehme*
 because I the bus tomorrow take
 ‘because I will take the bus tomorrow.’

In line with what was stated above, *den Bus* ‘the bus’ in (62a) can denote either an individual (that is, some bus vehicle or other or some bus line or other) or a property. In other words, both (63a) and (63b) are valid paraphrases for (62a). Construction (63a) is an event-related reading; that is, *den Bus* here denotes a property and translates therefore as a predicate at LF.

- (63) a. *because, as for me, I will engage in bus-taking tomorrow.*
 b. *because, as for (me and) the bus, I will take it tomorrow.*

In (62b), on the other hand, the scrambled DP *den Bus* denotes an individual only; that is, it may denote some bus or other or some bus line or other. In other words, the scrambled bus in (62b) is specific and presuppositional. Since specificity and presuppositionality are properties of arguments, not of predicates, *den Bus* in (62b) is an argument variable not a predicate, as it can (though need not) be in (62a). Crucially, (62b) lacks the event-related reading that obtains for (62a). This suggests that scrambling applies to arguments only, not to predicates. Hence the unavailability of the reading in (63a) for the sentence (62b). The same pattern obtains with clitic doubling of definites in Albanian and Greek.

In sum, it may be stated that definite noun phrases and a-expressions are semantically (and perhaps syntactically) nonhomogeneous; they are not always syntactic arguments when objects of verbs (and prepositions) but may translate either as arguments or as predicates at LF depending on whether the clausal predicate selects an individual (type <e>) or a property (type <e,t>) as its internal argument (cf. also van Geenhoven 1996 for a similar treatment of indefinites). The type of shifting mechanism (cf. Partee 1987) allows for this duality. This creates the illusion that scrambling or doubling of definites and a-expressions is optional. In fact, scrambled and doubled objects are always syntactic arguments. Since argument noun phrases are always specific (read: individual denoting), specificity effects will be observed in scrambling constructions. Nonscrambled and nondoubled objects may, but need not, be arguments.

5. Conclusion

In this paper, I have shown that direct object clitic doubling in Albanian and Greek produces information structure in a systematic way: doubled DPs are unambiguously interpreted as topics. This suggests that topichood is, at least in part, encoded in the syntax for these languages. Whether this is the Case universally and whether the representation of topics involves the same syntactic configuration cross-linguistically remain issues subject to further study. I have

also shown that specificity cannot be bestowed on an argument by a doubling clitic or scrambling; instead, specificity is fundamentally related to the D slot. Specificity effects in doubling and scrambling constructions are only by-products of deeper triggering properties.

Notes

This paper is a condensed version of the second and third chapter of my Ph.D dissertation (cf. Kallulli 1999). Versions of it were presented at the GLOW-workshop “The Syntax of Balkan Languages” (Athens, April 1996) and at the ESSE/4 workshop “Clitics in the Languages of Europe” (Debrecen, September 1997). I am grateful to these audiences for their comments. I am indebted to Antonia Androutsopoulou for her invaluable help with the Greek data. I also thank Lars Hellan, Joe Emonds and Georg Niklfeld for their comments as well as the anonymous reviewer of the volume *Clitic Phenomena in European Languages* (F. Beukema and M. den Dikken, eds.), in which a version of this paper will also appear. Finally, I thank the editors of the present volume for their encouragement and support.

1. Here I depart from the view that an NP is exclusively a complement of D (cf. Abney 1987) and more generally from the implication that once a projection is available, at least within a given language, it is always present and syntactically active in that language even though at times it may be inert or morphologically empty (cf. Chomsky 1995). Note, however, that I am not claiming that the D position cannot be morphologically empty. For discussion, see sections 4.2 and 4.3, where I argue that count bare singulars and existential bare plurals are not DPs with a morphologically null D, but NPs altogether lacking a D projection. Consequently, they are not arguments but predicates at LF. By contrast, generic bare plurals are DPs with morphologically null Ds. The advantage of this distinction between DPs and NPs is that it allows for a more principled mapping between syntax and semantics.

2. Albanian and Greek have identical Case systems except that the Greek counterpart of the Albanian dative is genitive.

3. For a detailed description of the positioning of clitics in several types of clauses in Albanian and Greek, see Joseph and Philippaki-Warbuton (1987), Rivero (1994), Rivero and Terzi (1994), and Kallulli (1995, 1997).

4. For an analysis as to why clitic climbing is absent across all Balkan languages, see Terzi (1992).

5. In this context, cf. also Suñer (1988:399–400) who provides the following examples from Portefño Spanish as empirical evidence against viewing the prepositional element *a* in Spanish, a language where Kayne’s generalization seems to be generally operative, as a Case-assigning device; she argues instead that *a* is an animacy marker, which is why it is missing in the examples (i)–(iii) below.

(i) *Yo lo voy a comprar el diario justo antes de subir.*
I am going to buy **it-the newspaper** just before coming up

(ii) *Yo la tenia prevista esta muerte.*
I had foreseen **it-this death**

(iii) *Ahora tiene que seguir usndo lo el apellido.*
Now she has to go on using **it-the surname**.

6. On the significance of violations of Kayne’s generalization for the clitic doubling parameter, cf. Anagnostopoulou (1994).

7. Albanian and Greek are *pro*-drop, null-subject languages, and nothing stops clitics from appearing sentence initially.

8. In Albanian the definite article is suffixed to the noun stem (indicated by the use of hyphens in the Albanian examples); in Greek, as in English, it is a separate phonological entity and precedes the noun stem.

9. For instance, doubling is sensitive to the feature *human* in Romanian and *animacy* in Spanish (cf. Jaeggli 1986, Borer 1984, Suñer 1988, Dobrovie-Sorin 1990).

10. Note, however, that the implication is only one way: definite direct object DPs may be doubled but need not be. As not all definites can be clitic doubled in Greek (cf., e.g., (9b), (10b)), Anagnostopoulou tries to relate direct object clitic doubling in this language to Heim's (1982) Familiarity Condition. However, this analysis is untenable in the face of doubling of indefinites unless Heim's crucial claim that all indefinites represent novel information is rejected.

11. Cf. also Agouraki (1993), who provides several other examples of doubling of indefinites.

12. Anagnostopoulou's claim that attributive definites may not be clitic doubled in Greek is not uncontroversial, though. In this context, according to Anagnostopoulou (1994), while clitics necessarily license familiarity on the direct object DPs they double, these DPs may be either novel or familiar if not doubled. This is clearly imperfect, as clitic doubling emerges under her treatment not only as a totally optional but also as an entirely redundant phenomenon if clitics may double definite DPs that are non-novel or familiar even when not doubled.

13. An additional argument against the right-dislocation hypothesis is presented in section 3.3.

14. However, clitic doubling in Albanian and Greek is incompatible with focus DPs, as will become clear in section 3. According to the view that any constituent that can be raised by QR can serve as focus (cf. Chomsky 1976), quantifiers in general are default foci. In (11) I have tried to control this factor by focusing the verb. This is indicated in the English translation by the use of capital letters. The interaction of clitic doubling and focussing will be discussed at length in section 2.

15. Anagnostopoulou (1994) claims that doubled DPs in Greek may only receive a referential interpretation. A. Androutsopoulou (private communication), however, pointed out to me that the doubled DP in (12b) *can* receive an attributive interpretation (for instance, when the verb is focused).

16. Except where indicated otherwise, I will be concerned with doubling only of direct objects, not of accusative quirky subjects.

17. For details on the formalization of focus (i.e., its formal representation in λ -reduced intensional logic), see Jacobs (1983), Rooth (1996), and Krifka (1996).

18. Brody claims that the S-structure presence of the +f feature shows up as heavy stress at PF. According to him, the stressed +f-marked category is not necessarily the same as the +f-phrase, but the +f-phrase will always contain a +f-marked element. Although he does not define the notion of "heavy stress", I take it to be phonetic prominence, probably indicated by a pitch accent. Unlike Brody, I wish to leave open the possibility that focus may have other PF correlates even if phonetic prominence or pitch accent is absent.

19. At this point, it should be clear that direct object clitic doubling is somewhat less strict in Greek than in Albanian since only in the latter does it obligatorily occur whenever the direct object DP is outside the focus domain. The fundamental point to note, however, is that in both languages direct object clitic doubling indisputably marks the direct object DP as [-Focus]. In other words, while doubling of direct object DPs in

Albanian and Greek necessarily marks these DPs as [-Focus], it is not the Case that for the direct object DP to be interpreted as [-Focus], it has to be clitic doubled (as in Greek).

20. Albanian has an optional question particle for yes-no questions.

21. The sentences in (20) are grammatical also when the direct object (in the first conjunct) is clitic doubled under an interpretation that can be roughly rendered in English as: 'As for Anna and the beans, she didn't cook them, rather she ate the figs'. But notice that in this interpretation, 'the beans' is indisputably outside the focus domain. Hence, doubling exempts the direct object from the focus domain.

22. Example (21) is analogous to example (10).

23. In Albanian, focussing adverbs can attach to different sites without necessarily affecting the interpretation of phrases in terms of the [\pm Focus] feature. That is, unlike in English, it is not necessarily the constituent that the focus particle immediately precedes that constitutes the focus domain. Because of this complexity, I provide the intended interpretation in the English translations of the Albanian and Greek examples by employing square brackets followed by the subscript F (to indicate focus domains).

24. Again, in Albanian, clitic doubling of direct object DPs is obligatory when the object is outside the focus domain. A. Androutsopoulou (private communication) points out that clitic doubling of the object when the direct object is outside the focus domain is optional in Greek; however, she notes that (24b) and (25b) are strongly preferred with the doubling clitics.

25. In fact, as the notation in (26) indicates, clitic doubling of the direct object DP is obligatory in Albanian when the subject is focus; in Greek, however, clitic doubling of the direct object DP is only optional when the subject is focus.

26. This feature (i.e., [-Focus]) could alternatively be represented formally as [+Topic]. Recall that in section 3.1 I defined *topic* as the complement of *wh*, not as necessarily old or familiar information. In this context, see also Reinhart (1981, 1996), who crucially points out that defining *topic* as old or familiar information, as in the Prague school, is not only conceptually clumsy, but also empirically incorrect. In view of the fact that topic is the counterpart of focus, it makes little difference whether we choose to represent it formally as [-Focus] or as [+Topic]. For the sake of symmetry in representation, however, the postulate of one binary feature (here [\pm Focus]) might be preferable. Hence my choice of label: [-Focus]. As Reinhart remarks, "Even in view of the massive varieties of opinions regarding what topics are, [there] is one context all studies agree upon: the NP in *there*-sentences can never be topic" (Reinhart 1996). We thus expect that objects of the verb 'to have' may not be clitic doubled in Albanian and Greek existential constructions. This is indeed the Case, as witnessed by the examples under (i) and (ii) below:

- | | | | | | | |
|------|-------|---------------|-----------------|------------------|-----------------------|------|
| (i) | (*I) | <i>kishte</i> | <i>minj</i> | <i>në gjithë</i> | <i>apartment-in.</i> | Alb |
| (ii) | (*Ta) | <i>ixe</i> | <i>pondikia</i> | <i>se olo</i> | <i>to ðiamerizma.</i> | MGrk |
| | | them-CL | had mice-ACC | in all | the apartment | |
- 'There were mice all over the apartment'

27. With respect to the property they license, according to Sportiche, clitics subdivide into two types. The first type (typically accusative clitics) assimilates to such functional heads as [+wh] complementizers or [+negative] heads, which license some operatorlike properties (e.g., *wh*- or negative quantifiers). Sportiche argues that the operatorlike property these clitics license is specificity in DPs. The second type of clitic (typically nominative and dative clitics in Romance) is claimed not to be linked to specificity. Concerning this second type of clitics, Sportiche suggests that they be analyzed as pure agreement markers, that is, as elements devoid of interpretive import,

presumably responsible for dative Case assignment (i.e., AgrIO-heads in the sense of Chomsky 1995).

28. The idea that focus is involved in scrambling phenomena is extensively discussed in Reinhart (1996). While Reinhart argues that a scrambled constituent cannot be focus, she favors a PF approach to focus (cf. Cinque 1993), which crucially involves the notion of stress prominence. However, as stated in note (18), I wish to leave open the possibility that the syntactic feature of focus may have PF correlates that are different from (and perhaps exclude) stress prominence. Therefore, I will not undertake to present Reinhart's account.

29. An anonymous reviewer points out that scrambled noun phrases may have contrastive focus, as in the Dutch example below:

- (i) *Ik heb slechts EEN van de boeken nog niet gelezen.*
 I have only ONE of the books yet not read

Here the DP 'the books' is marked [-Focus], but 'one' is [+Focus]. However, in Albanian and Greek contrastively focused direct object DPs are incompatible with doubling. The reason why the parallel between scrambling and doubling breaks down when contrastive focus is involved is not entirely clear to me. It might be stipulated, though, that contrastive focus is fundamentally correlated with stress prominence at PF. However, since clitics are incompatible with PF stress (i.e., marked [-stress]), the derivation crashes because of value divergence with respect to PF stress. The nonovert clitic head in the Case of scrambling might, however, be totally underspecified for the PF stress value; as such, a [+stress] element moved to its specifier position in the syntax will not render the derivation illicit at PF.

30. In fact, this claim only holds for those bare plurals that receive an existential interpretation. This is explicated in section 4.3.2.

31. As it happens, even closely related languages differ with respect to the possibility of instantiating their direct objects by count bare singulars. Thus, while count bare singulars are virtually nonexistent as direct objects in English, across Balkan and Mainland Scandinavian languages they may occur as direct objects of all predicates whose bare plural direct objects cannot get a generic (either referential and kind denoting or quantificational) interpretation but get an existential one. In German, on the other hand, count bare singulars do occur as direct objects but are much more restricted than in Balkan and Mainland Scandinavian. Note in this context that of all the languages mentioned above, only English disallows count bare singulars in predicate nominal position. Finally, note that count bare singulars are found also in English as objects of certain prepositions, e.g., *go to school/church/market, travel by train/plane, etc.*

32. Throughout, I use the term *a-expression* (cf. Chastain 1975) to refer to nonquantified singular indefinite noun phrases with articles.

33. The relation between bare singulars and bare plurals is discussed in detail in section 4.3.2.

34. Here I am not implying that if a constituent occurs clause initially it necessarily occupies Spec of CP. I am only assuming with Brody (1990) that Spec of root CPs is one (of the) canonical position(s) for [+Focus] phrases, and since the fronted constituents in (40) are indisputably [+Focus], it makes sense to assume that they occupy precisely this slot. However, I remain open to the idea that there is above the CP node a projection headed by some operator that licenses d-linking in its specifier position (cf. Pesetsky 1987).

35. In some Balkan languages (e.g., Greek, Bulgarian), bare singulars may occur as what looks as subjects of unergative predicates as in (i) below. In this case they are necessarily focused, as the English translation in (i) indicates.

- (i) ΦΙΔΙ ton ikhe ðayosi to Costa.
 SNAKE him-Cl had bitten the Costas
 'It was a snake that had bitten Costas.'
 (Agouraki 1993: 170)

The fact that the bare singular subject in (i) cannot be interpreted as topic suggests that unlike sentences, where subjects are instantiated by definite- or a-expressions, sentences containing what appears to be bare singular subjects are fundamentally discourse dependent. In Kallulli (1999), I argue that bare singulars as in (i) are not subjects but predicate nominals in specifier positions of root CPs.

36. Throughout this paper the term *existential* is used in opposition to *presuppositional*. That is, *existential bare plurals* should be understood as *non-generic bare plurals* only.

37. This section builds on earlier work (cf. Kallulli 1997b, 1998). For reasons of space, I do not discuss data from Mainland Scandinavian (MS) here. However, whatever is said in this paper about the meaning of bare singulars in German and Balkan languages holds for MS as well. For details, see Kallulli (1997b, 1998).

38. Note that the referential/attributive dichotomy (cf. Donellan 1966) divides the three readings in (41) in a different manner. The reading in (41a) is referential, while the (41b) and (41c) readings are attributive. This is because only in (41a) has Ann established a direct relationship with some particular haecceitas. This is not the Case in (41b): any Dior dress, not just a particular one, is sufficient for Ann under the reading in (41b). Yet the indefinite noun phrase in (41b) receives a specific interpretation, because Ann is not interested in any dress; she wants a specific *type* of dress, namely, a Dior one, but obviously she does not mind which particular sample (e.g., with respect to color, cut, production year, etc.) she gets. Thus, specific noun phrases may be intended as either referential or attributive (cf. also Ioup 1977). In other words, the distinction referential versus attributive makes sense for specific noun phrases only.

39. Many thanks to Marcel den Dikken (private communication) for pointing out these data to me.

40. As van Geenhoven (1996) shows, the arguments that have been brought against Carlson's lexicalized existential quantifier vanish if this quantifier is granted dynamic instead of static force.

41. This is independently proposed by É. Kiss (to appear). However, Kiss relies on Enç's (1991) account of specificity, which is rather problematic. Space considerations prevent me from dealing with this point in detail, though some problems with it will be identified in section 4.3.4.

42. M. Krifka (private communication) points out to me that similarly, number words can have wide scope, as in his example 'Four thousand ships passed through the lock', which means 'There were four thousand ship-passings'.

43. It is well known that unlike simple present tense in English, simple present in German can have both an episodic and a generic meaning. That is, the German sentence in (53) can also mean 'Students make noise in the street'. However, I am interested only in the existential interpretation of the bare plural, hence the given English translation.

44. Note also that Norwegian is not a *pro*-drop language.

45. Since bare plurals are in Balkan languages incompatible with generic readings, the question of doubling them does not even arise.

46. J. Emonds (private communication) points out to me that definite expressions in some locative phrases (e.g., *I am going to the airport/to the doctor's/to the shore/to the hospital*) have a predicative reading as well. Note that these are not generic: *The only time in my life I went to Texas I took the plane*.

47. In the Principles and Parameters framework, the subjects of examples like *Being wise/To be wise is crazy or Being crazy is crazy* (examples from Chierchia 1985: 418) are clausal syntactically and propositional semantically (Koster and May 1982). For examples like *Wisdom deserves reward*, I agree with Chierchia (1985) in that one cannot make a very compelling point about the subject of this sentence being a propertylike creature, because “the realm of nominalizations such as [wisdom] ... [is] still largely unknown, which relegates our considerations to the realm of intuitions” (Chierchia 1985:418). Such examples do not therefore necessarily constitute counterexamples to my claim that subjects invariably denote individuals.

48. Alternatively, it might be that both the indefinite and the definite article are not exclusively generated under D but may also be generated NP-internally. It is beyond the scope of this study to decide between these alternatives.

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Adjectival Determiners in Albanian and Greek

Antonia Androutsopoulou

1. Introduction

This essay deals with the syntax of adjectival determiners concentrating mainly on data from Albanian and Greek. The term adjectival determiner (“DET” in the glosses) refers to the element *to* preceding the adjective in the Greek example in (1a) and the element *e* in the Albanian example¹ in (1b):

- (1) a. *to vivlio *(to) kalo* b. *djal-in *(e) mirë*
 the book DET good boy-DEF DET good
 ‘the good book’ ‘the good boy (ACC)’

Following an analysis of relative clauses along the lines in Vergnaud (1974) and Kayne (1994), the structure of a noun modified by a relative clause, like that in (2a), is as in (2b), where the modified noun *book* raises to Spec, CP from its thematic position:

- (2) a. *the book that I read*
 b. [DP [D *the*] [CP *book*_i [C *that*] [IP *I read t_i*]]]

The novelty of the structure in (2b) is that it allows for a CP to be the complement of the determiner head D⁰. The proposal in this essay is that the presence of an adjectival determiner evidences a relativizing structure within the DP containing the adjective. More specifically, I propose that the DPs in (1a) and (1b) have the surface structures in (3a) and (3b) respectively:

- (3) a. [DP *to* [D/PP *vivlio*_i [D/P *to*] [AgrP *kalo*_j t_i t_j]]]
 b. [DP [*djalin*_j] [D/PP [t_j]_i [D/P *e*] [AgrP *mirë*_j [t_i t_j]]]]²

Kayne (1994) argues that the projection complement of D in structures of the sort found in (2b) and (3) may be occupied by a complementizer, as in (2b), or a

prepositional determiner, as in the French examples in (4), where the adjective is focused:

- (4) *le* [_{D/PP} *rouge* [_{D/P} *de*] [_{IP} *crayon*]]
 the red pencil

or in (5):

- (5) *la* [_{CP} *voiture*_j] [_{de} [_{IP} *Jean* [I [e]_j]]

and takes the D/PP of (5) to be parallel to the D/PP that occurs as sister phrase to the abstract copula in the structure in (6):

- (6) *BE* [_{D/PP} D/P [_{IP} *Jean* [I [*voiture*]]]]

As argued in Kayne (1993), to a significant extent in agreement with Freeze (1992), this structure is what underlies (7):

- (7) *Jean a une voiture.*

Jean, which would not be Case-licensed in Spec, IP in (6), moves from there to Spec, D/PP and then on to Spec, BE. The second step is licensed by incorporation of D/P to BE. D/P + BE is spelled out as HAVE (Kayne 1994:120). Hence the indeterminacy in the name of the projection: C/D/PP. My claim is that the position, that is, D/P, is available to adjectival determiners also. The occurrence of adjectival determiners within the DP correlates with the availability of DP-internal movement of the noun as part of an XP (extended projection) of the noun. The category of the preposed XP determines the availability or not of a certain ordering of constituents within the DP (cf. section 7). Español-Echevarría (1995, 1997, 1998) also proposes that in Spanish, inalienable possession copulative contexts and A/N of N constructions, respectively, involve a structure similar to that in (4), and DP-internal XP movement. The essay is developed in the general framework of Kayne (1994), which allows only movement to the left, and disallows multiple specifiers, and Chomsky (1995), according to which feature checking is the motivation for movement.

2. Adjectival determiners in Albanian

In Albanian, the definite determiner is not a separate word. Definite nouns are distinguished from indefinite ones by bearing different endings. These endings vary for both definite and indefinite nouns with Case as appropriate:

- (8) a. *lis* *lis-i*
 ‘oak (NOM)’ ‘the oak (NOM)’
 b. *lis-i* *lis-it*
 ‘oak (DAT)’ ‘the oak (DAT)’

The language distinguishes three grammatical genders and five Cases: nominative, accusative, genitive, dative, and ablative. In an Albanian DP, like that in (9), all constituents are marked and agree in gender and number. Postnominal attributive adjectives are not marked for Case. Thus, in (9), only the demonstrative, the noun, and the adjectival determiner are marked for Case:

- (9) *ky djalë /djali i mirë*
 this boy-INDEF/boy-DEF DET good
 'this good boy'

In this language, the so-called articulated adjectives³ are always preceded by a morpheme, denoted here by the term adjectival determiner ("DET" in the glosses), regardless of whether they are used attributively, as in (10a):

- (10) a. *mësuesi i lutmur*
 teacher-DEF DET happy
 'the happy teacher'

or predicatively, as in (10b):

- b. *Mësuesi ishte i lutmur.*
 teacher-DEF was DET happy
 'The teacher was happy.'

or of whether they modify a definite (cf. (10a)) or an indefinite noun (cf. (11)):

- (11) *një baba i zi*
 a father DET-MASC.NOM.SG black-MASC.SG
 'a poor father'

Adjectival determiners agree in gender and number (and Case, when the adjective is marked for Case) with their corresponding adjective. They also agree in gender, number, and definiteness (and Case, when the noun is marked for Case) with the noun modified by the adjective. In Albanian DPs, attributive adjectives are canonically postnominal. In this situation, they are not marked for Case, this feature being marked only on the modified noun, as noted with respect to (9):

- (12) a. *një djalë i mirë*
 a boy-MASC.NOM.SG DET-MASC.NOM.SG good-MASC.SG
 'a good boy (NOM)'
- b. *një vajzë e mirë*
 a girl-FEM.NOM.SG DET-FEM.NOM.SG good-FEM.SG
 'a good girl (NOM)'
- c. *djem të mirë*
 boy-MASC.NOM.PL DET-MASC.NOM.PL good-MASC.PL
 'good boys (NOM)'

- d. *vajza* *të* *mira*
 girl-FEM.NOM.PL DET-FEM.NOM.PL good-FEM.PL
 ‘good girls (NOM)’
- e. *një djali* *të* *mirë*
 a boy-MASC.DAT.SG DET-MASC.DAT.SG good-MASC.SG
 ‘a good boy (DAT)’
- f. *një vajze* *të* *mirë*
 a girl-FEM.DAT.SG DET-FEM.DAT.SG good-FEM.SG
 ‘a good girl (DAT)’

When prenominal, Albanian adjectives receive a focus interpretation. They still have to be preceded by the adjectival determiner. In this instance, it is the adjective and not the noun that is marked for Case (cf. (13a)). In definite DPs, prenominal adjectives are marked for definiteness as well as for Case, in contrast to the noun, which remains unmarked for these features (cf. (13a)). When the adjectives remain postnominal, it is the noun that is marked for Case and definiteness, while the adjective is unmarked for these features (cf. (13b)):⁴

- (13) a. *të* *mirin* *djalë*
 DET-MASC.ACC.SG good-MASC.DEF.ACC.SG boy-MASC.SG
 ‘the GOOD boy’
- b. *djalin* *e* *mirë*
 boy-MASC.DEF.ACC.SG DET-MASC.ACC.SG good-MASC.SG
 ‘the good boy’

Albanian adjectival determiners “are connected historically with postposed articles, which lost their independence and turned into definite Case endings” (Newmark et al. 1982:179). Observe, in this respect, the similarity in form between the two in (14):

- (14) a. *i mir-i* b. *të mirët*
 ‘the good (one)’(MASC.NOM) ‘the good (ones)’(MASC.NOM)
- c. *së mirës* d. *të mirit*
 ‘to the good (one)’ (FEM.DAT) ‘to the good (one)’(MASC.DAT)

The form of the adjectival determiner depends on whether the adjective immediately follows a definite noun or not⁵ (cf. (15a) and (15b)), as well as the contrast between (13a) and (13b):

- (15) a. *një vajze* *të* *mirë*
 a girl-INDEF.FEM.DAT.SG DET-INDEF.FEM.DAT.SG good-FEM.SG
 ‘a good girl (DAT)’
- b. *vajzës* *së* *mirë*
 girl-DEF.FEM.DAT.SG DET-DEF.FEM.DAT.SG good-FEM.SG
 ‘the good girl(FEM.DAT)’

Finally, strict adjacency is required between the adjectival determiner and the adjective. Adverbials modifying adjectives appear before the adjectival determiner:

- (16) a. *domethënie jashtëzakonisht të madhe*
 significance-INDEF unusually DET great
 'unusually great significance'
- b. *Ai është gati i bardhë.*
 he is almost DET white
 'He's almost white.'

3. Adjectival determiners in Greek

In Greek, the definite determiner is a separate prenominal word. The language distinguishes three grammatical genders and three morphological Cases: nominative, accusative, and genitive.⁶ In a Greek DP, like that in (17), all constituents are overtly marked and agree in number, gender, and Case:

- (17) *afto to kokino (to) vivlio*
 this the red the book
 'this red book'

Attributive adjectives in Greek may be either prenominal or postnominal. In a definite DP, when the adjective is prenominal, as in (17), an optional definite determiner may appear between the prenominal adjective and the noun; when the adjective is postnominal, an extra definite determiner obligatorily appears between the adjective and the noun, as in (18):

- (18) *to vivlio *(to) kalo*⁷
 the book the good
 'the good book'

I treat the extra definite determiner that appears in front of the adjective, as in examples (17) and (18), as an adjectival determiner. The occurrence of extra definite determiners in Greek definite DPs, labeled "determiner spreading" in Androutsopoulou (1994, 1995), is related to the availability of more than one ordering of adjectives within the DP.

Greek adjectival determiners are identical in form to the corresponding definite article. Their distribution is (apparently) not as extended as in Albanian. As noted in the previous section, the language shows overt adjectival determiners only in definite DPs, and their occurrence is obligatory only in the case of postnominal adjectives (cf. (18) above). Also, in contrast to Albanian (cf. (10b)), adjectival determiners in Greek never appear in predicative position:

- (19) *To vivlio ine (*to) kokino*
 the book is the red
 'The book is red.'

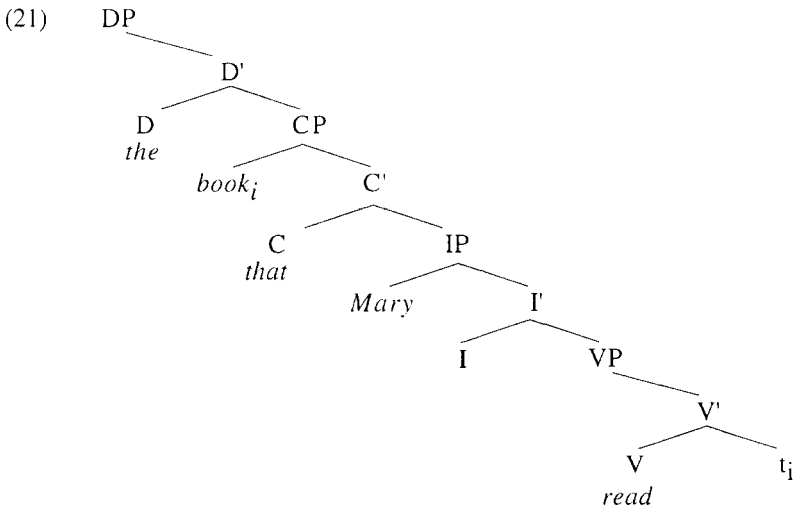
or in indefinite DPs:

- (20) a. *ena (*to) kokino vivlio* b. *ena vivlio (*to) kokino*⁸
 a the red book a book the red
 'a red book' 'a red book'

Recall, however, that in Albanian, the form of the adjectival determiner depends on whether it immediately follows a definite noun or not. Thus, let us call the token of the Albanian adjectival determiner that immediately follows a definite noun, the definite token of the adjectival determiner, and the token of the Albanian adjectival determiner that appears in the other positions the nondefinite token of the adjectival determiner. If we were to assume that in Greek the non-definite token of the adjectival determiner has no morphological realization, then Greek examples like (20b) would parallel corresponding Albanian examples, for instance, (11).

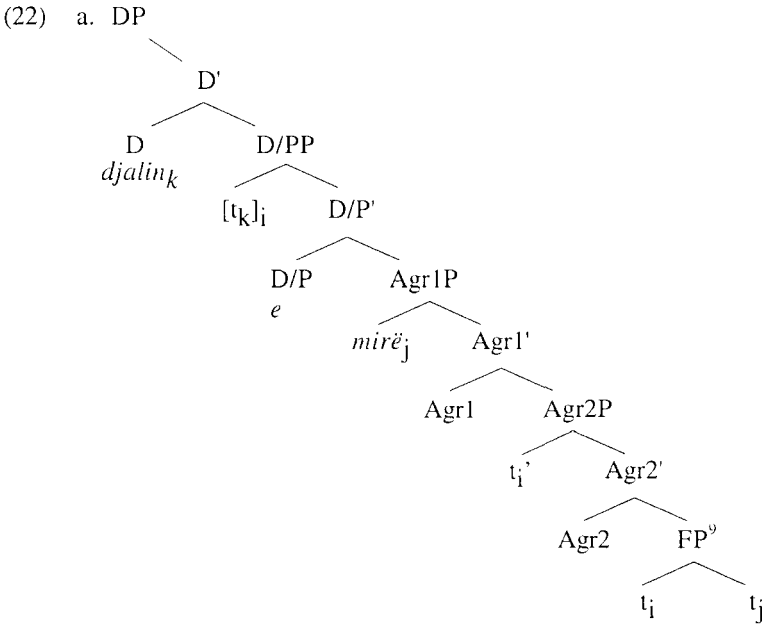
4. Head raising analysis of relative clauses

Kayne (1994) adopts the so-called head raising analysis (Smith 1969, Vergnaud 1974) of relative clauses and proposes an analysis of relative clauses along the lines of (21). In (21), the relative CP is a complement of D occupied by *the*, the determiner of the relativized noun *book*, and the relativized noun raises from its thematic position to the specifier of the CP complement of D:



5. A unified analysis of Albanian and Greek

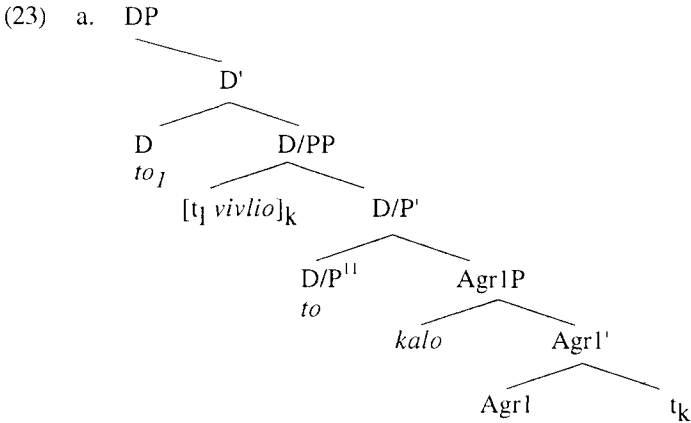
I claim that the occurrence of adjectival determiners evidences a relativizing structure within the DP in which they are contained. More specifically, I propose the structure in (22a) for an Albanian DP like that in (13b), repeated here in (22b), containing an adjective:



- b. *djalın* *e* *mirë*
 boy-DEF DET good
 ‘the good boy (ACC)’ (cf. (13b))

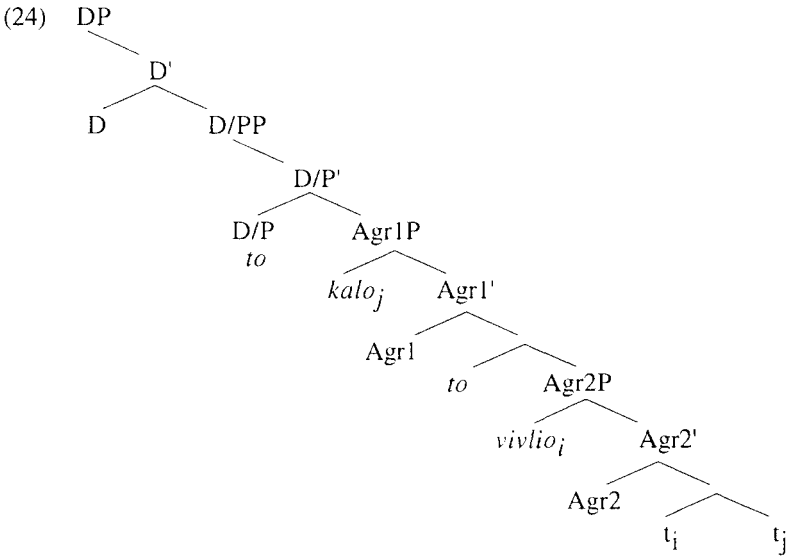
In (22a), the adjectival determiner, rather than being a head contained within a specifier of the DP structure of the noun *djalın*, is a head in the main structure of this DP. That is, the adjectival determiner is part of the extended projection of the noun with which it agrees. Thus, in a structure like that in (22a), preposing of the noun cannot be an instance of N raising. The D/P head would inhibit such raising or else the Head Movement Constraint would be violated. Thus, the noun must appear to the left of the adjective as a result of XP movement rather than N movement. So the noun raises as part of a maximal projection first to Spec, Agr2P, and subsequently to Spec, D/PP. I understand Spec, Agr2P as a DP-internal subject position. In Albanian, this position is available only to a constituent bearing the Case and definiteness marker *-in* in (22a) (cf. also section 9.1).¹⁰ Following Chomsky (1995), in (22a) I assume that the noun *djalın* enters the syntax fully inflected under N and moves first to Spec, Agr2P and then to Spec, D/PP. In Spec, D/PP, the noun *djalın* is in an appropriate structural configuration that will allow it to check its categorial N feature against that of D (cf. Chomsky 1995), through the last step in the derivation in (22a), namely, through head movement of *djalın* to left-adjoin to D. The adjective moves to Spec, Agr1P, which I understand as an agreement projection where morphologi-

cal features spelled out on the adjective are checked. For a Greek DP like that in (18), repeated here in (23b), containing a postnominal adjective and an adjectival determiner, I propose the structure in (23a), parallel in the relevant aspects to that in (22a):



- b. *to vivlio *(to) kalo*
 the book DET good
 'the good book'

The last step in the derivation in (23a) is movement of the topmost definite determiner, sitting inside Spec, D/PP to left-adjoin to D. As in the corresponding Albanian example in (22a), in (23a) I will take AgrIP to be the projection under which morphological features spelled out on the adjective are checked. Example (23a) depicts only the steps in the derivation of (23b) relevant for the discussion of adjectival determiners. In the state of affairs in (23a), I think that it is reasonable to conjecture, similarly to what I have proposed for Albanian in (22a), that in (23a), prior to movement of *to vivlio* to Spec, D/PP, *vivlio* moves to Spec, Agr2P, and a configuration like that in (24) obtains:



A remark is appropriate here on the token of the definite determiner *to* preceding *vivlio* in (24). This token of the definite determiner is, except for the fact that it is a free morpheme, parallel in all relevant aspects to the suffix *-in* on the noun in the Albanian example in (22b). They are both the spell-out of the features [+DEF, β Case, γ gender, δ number]. In this particular case, β = nominative or accusative for the Greek example and accusative for the Albanian example, δ = singular for both the Albanian and the Greek example, and γ = masculine for the Albanian example and neuter for the Greek example. Since *to* is a free morpheme, a projection the head of which is occupied by *to* is postulated in (24).¹² The structure in (22a) and (23a) is in all relevant aspects parallel to that in (21) above. Thus, the adjectival determiner in (22b) and (23b) is to be understood as a relativizing head, parallel to C in (21). Essentially, then, as already mentioned, the claim is that in the cases at hand, adjectival modification introduces a DP containing a relativizing structure. Kayne (1994) takes a similar stand for a number of adjectival constructions, for instance the French one in (25):

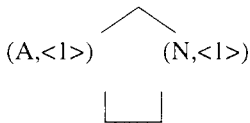
- (25) a. *quelq'un de célèbre*
 someone of famous
 b. D [D/PP [NP *quelq'un*_i] de [IP [AP *célèbre*_j] [I [e]_i] [e]_j]
 (from Kayne 1994.106)

Both in (22a) and (23a) the noun moves, as part of an XP, to Spec, D/PP. This movement of the noun is a movement akin to that of the relativized head in relative clauses like that in (21). I want to claim (on a par with Androutsopoulou 1995) that the motivation of this movement, in the case of adjectival modification, is the licensing of an identification relation between the noun and its modifying adjective, akin to the θ identification relation, which, following Higginbotham (1985), holds between a noun and its modifying adjective, and

which is derived from the Principle of Full Interpretation (PFI) (cf. Chomsky 1986b). More specifically, according to Higginbotham (1985), an adjective, for instance, *kalo* 'good', contains an empty argument position, <1> in (26b). In an example like (26a), this position is identified via the special mechanism of θ identification, with the single open position of the noun *vivlio* 'book', as depicted in (26b), where the connecting line denotes θ identification.¹³ The resultant unique – after θ identification – open position, is bound by the determiner. Informally speaking, through θ -identification, the referent of the adjective becomes the same as the referent of the noun. The referent of the noun is determined through its corresponding D(eterminer):

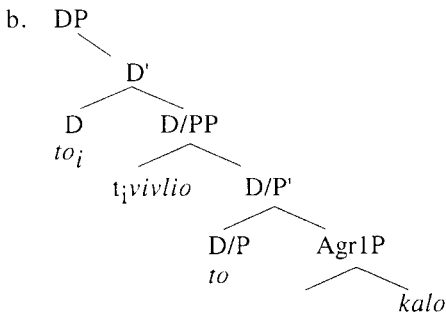
- (26) a. *to kalo vivlio*
 the good book
 'the good book'

b. N', <1>



In contexts of adjectival modification involving adjectival determiners, as in (22b), or (23b), repeated here under (27a), I would like to claim that rather than θ identification, which is a relation holding between predicates, identification takes place at the level of the constituents found in a Spec-head configuration under D/PP, as in (27b).

- (27) a. *to vivlio *(to) kalo*
 the book the good
 'the good book'



- (iii) in the plural nominative and accusative of all genders,
 (iv) in the singular genitive, dative, ablative of the feminine.¹⁶

For the other combinations of gender, number, and Case, the form of the adjectival determiner is the same across all the positions in which it may appear, for instance, in the nominative of the singular of the masculine, as in (29):

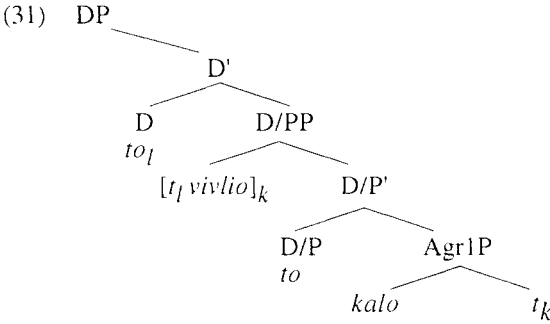
- (29) a. *djali i mirë* b. *i miri djalë*
 boy-DEF DET good DET good boy
 'the good boy' 'the GOOD boy'

The above facts indicate that agreement in definiteness obtains between the noun and the adjectival determiner. I will assume that definiteness agreement between a definite noun and an adjectival determiner immediately following such a noun obtains also in the cases in which the form of the adjectival determiner does not change when it is immediately preceded by a definite noun, as in (29). The difference between the case in (28) and that in (29) is that in the latter, the definite token of the adjectival determiner in (29a) (corresponding to the token in (28b)) and the nondefinite token of the adjectival determiner in (29b) (corresponding to the token in (28a)) are morphologically the same. In the structure in (22a), definiteness agreement between a definite noun and an adjectival determiner immediately following it, *djalin* and *e* in (22a) and (22b) above, is checked, under a Spec-head configuration, when the former sits in Spec, D/PP.

In Greek, also, the occurrence of the adjectival determiner evidences definiteness agreement between the noun and the adjectival determiner. Recall that in Greek, the adjectival determiner is morphologically identical to the corresponding form of the definite determiner, and that it occurs obligatorily only in definite DPs when the adjective is postnominal. Thus the contrast between (30a) and (30b) and the ungrammaticality of (30c):

- (30) a. **to vivlio kokino* b. *to vivlio to kokino*
 the book red the book the red
 'the red book' 'the red book'
- c. **ena vivlio to kokino* d. *(ena) vivlio kokino*
 a book the red a book red
 'a red book' 'a red book'

I will call the adjectival determiner that appears in Greek definite DPs, the definite token of the adjectival determiner, and will assume that in this language, the nondefinite token of the adjectival determiner, the one that we would expect to appear in an example like (30d), is not morphologically realized. As in Albanian, definiteness agreement between the noun and the adjectival determiner is checked in Greek, when the extended projection of the noun, *to vivlio* in the structure in (23a), the relevant part of which is repeated here under (31), sits in the specifier of D/PP:



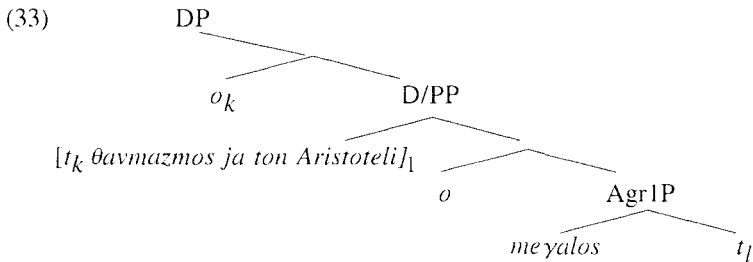
Construction (30a) is ungrammatical because, as opposed to (30b), no definite token of the adjectival determiner, *to*, sits under D/P. Construction (30c) is ungrammatical because the definite token of the adjectival determiner, *to*, sits under D/P, while the specifier of D/PP is occupied by an indefinite constituent, (*ena*) *vivlio*.¹⁷ For examples like (30d), I assume that the adjectival determiner is not morphologically realized; that is, Greek, as opposed to Albanian (cf. (15a), (28a)), does not have an overt [-DEF] adjectival determiner.

7. Adjectival determiners and XP movement

A consequence of the analysis in (22a) and (23a), as already discussed in section 5, is that preposing of the noun in the corresponding examples cannot be the result of head raising. Rather, the noun must raise as part of an XP. That this is the case is evidenced by the fact that in Greek, preposed nouns may be followed by their complements, as in (32):

- (32) *o θαυμασμος ja ton Aristoteli o meyalos*
 the admiration for the Aristotle the great
 ‘the great admiration for Aristotle’

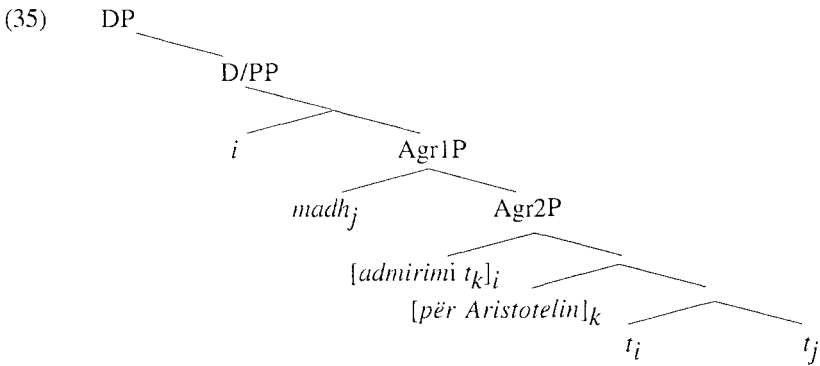
Thus, the structure of (32) is as in (33) (cf. also (36) below):



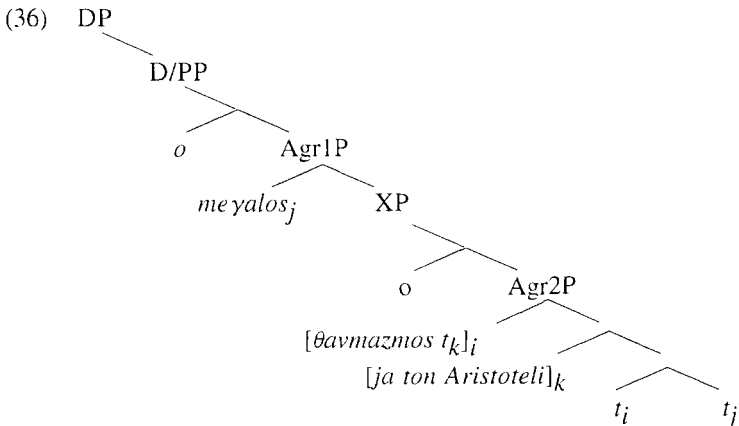
The Albanian counterpart of (32) is ungrammatical:

- (34) a. **admirimi për Aristotelin i madh*
 admiration-DEF for Aristotle-DEF DET big
 b. *admirimi i madh për Aristotelin*
 admiration-DEF DET big for Aristotle-DEF
 ‘the great admiration for Aristotle’

I maintain that this contrast between Albanian and Greek ((32) vs. (34a)) is a reflex of the constituent that moves to Spec, D/PP in each of the two languages. I assume that in both languages the PP *për Aristotelin/ja ton Aristoteli* moves away from its thematic position out of the NP, and that the landing site of this movement is lower than Agr2P in (22a) or (24). Following the proposal in (22a), in an example like (34a), *admirimi*, like *djalin* in (22a), moves to Spec, D/PP. Prior to moving to Spec, D/PP, *admirimi* moves to Spec, Agr2P (like *djalin* in (22a)). This point in the derivation of an example like that in (34a) is depicted in (35):



Similarly, following the proposal in (23a) and (24), the derivation of (32) involves the snapshot depicted in (36) (the same snapshot as that depicted in (35) for the Albanian example in (34a)):



In the state of affairs in (35), since the definiteness and Case marker *-i* is a suffix on the noun *admirimi*, it is the specifier of Agr2P that moves to Spec, D/PP. Thus, (34a) cannot be derived.

On the other hand, in (36), the morpheme corresponding to the Albanian *-i*, that is, the token of the definite determiner *o* preceding the noun *thavmasmos*, is a free morpheme occupying a head in the main structure of the DP. Thus, it is not the specifier of Agr2P that moves to Spec, D/PP. Rather, as in (23a), the projection headed by the definite determiner *o*, that is, XP, moves to Spec, D/PP. Through this movement, the PP *ja ton Aristoteli* moves together with the noun *thavmasmos*, and thus, (32) is derived.¹⁸

In sum, then, (32) is grammatical in Greek because, in the element *o thavmasmos* attracted to Spec, D/PP in (36), the definite determiner *o* is a head in the main structure of the DP *o meyalos o thavmasmos ja ton Aristoteli* ‘the great admiration for Aristotle’, and thus, the whole structure dominated by *o* is pied-piped by the movement of the attracted element. In Albanian, on the other hand, (34a) is ungrammatical, because no such pied-piping takes place. The element corresponding to the Greek definite determiner *o* is the suffix *-i* on the noun *admirimi* in (35), and thus, no part of the attracted element *admirimi* sits under a head of the main DP structure. Rather, *admirimi* sits in Spec, Agr2P.

8. Adjectival ordering

A major argument in favor of DP-internal XP movement of the noun in DPs containing adjectival determiners comes from word order facts in DPs containing more than one adjective. It has been argued by a number of authors—Vendler (1968), Dixon (1982), Sproat and Shih (1988, 1991), and Cinque (1994), among others—that adjectives have a basic universal fixed (left to right) relative order. Size adjectives precede color adjectives, and thus, in the unmarked case, an adjective like *meyalo* ‘big’ is expected to precede an adjective like *kokino* ‘red’. Indeed, this is the unmarked order¹⁹ for these adjectives, as shown by the contrast between (37a) and (37b):

- (37) a. *to meyalo kokino vivlio* b. **to kokino meyalo vivlio*
 the big red book the red big book
 ‘the [big [red book]]’ ‘the [big [red book]]’

The contrast in (37) is independent of the occurrence within the DP of adjectival determiners, as shown by the contrast between (38a) and (38b):²⁰

- (38) a. *to meyalo to kokino to vivlio*
 the big the red the book
 ‘the [big [red book]]’
 b. **to kokino to meyalo to vivlio*
 the red the big the book
 ‘the [big [red book]]’

On the other hand, the presence of adjectival determiners does allow for permutations of the order of constituents in a DP containing adjectives, for instance, that in (38a). The allowed permutations of (38a) are given in (39a)–(39d):

- (39) a. *to mevalo to vivlio to kokino*
 the big the book the red
- b. *to vivlio to mevalo to kokino*
 the book the big the red
- c. *to kokino to vivlio to mevalo*
 the red the book the big
- d. *to vivlio to kokino to mevalo*
 the book the red the big
- ‘the [big [red book]]’

We observe from (39c) and (39d) that the change in the order of adjectives correlates with preposing of the noun. Thus, assuming a fixed, hierarchical, left-to-right relative order of adjectives —for the adjectives *mevalo* ‘big’ and *kokino* ‘red’ in the examples under consideration in (38a) —all the allowed permutations of the order of constituents in (38a), as shown in (39), cannot be possibly derived by N raising of *vivlio* ‘book’ (cf. Androutsopoulou 1994, 1995 for detailed discussion). An N raising analysis of the preposing of the noun in (39a)–(39d) becomes even more implausible if we observe that such preposing is accompanied by preposing of a token of the definite determiner. Example (39c) can only be derived from (38a) if we postulate preposing of a bigger constituent containing *vivlio* and the adjective *kokino*. Similarly, (39d) can only be derived from (38a) through preposing of a bigger constituent containing *vivlio* and *kokino*, within which *vivlio* has already been preposed (these movements of *to kokino to vivlio*, *to vivlio to kokino*, and *to vivlio* are parallel to that of *to vivlio* in (23a); cf. also (24)). That an analysis of (39a)–(39d), taking the structure of (38a) as the basic structure, is tenable is evidenced by the fact that all the permutations in (39) have, or allow for, the relative scope of adjectives to be the same as that in (38a) (or that in (37a)), namely, that indicated by the brackets in the gloss of the paradigms in (37)–(39). I assume here that the movements that derive (39a)–(39d) from (38a) do not affect the hierarchical relative scope of adjectives, which is determined by their order in the structure of (38a) (minimally different from that of (37a); see, in this respect, the structures in (47) and (50) below); in both (37a) and (38a), the adjectives are hierarchically ordered.²¹

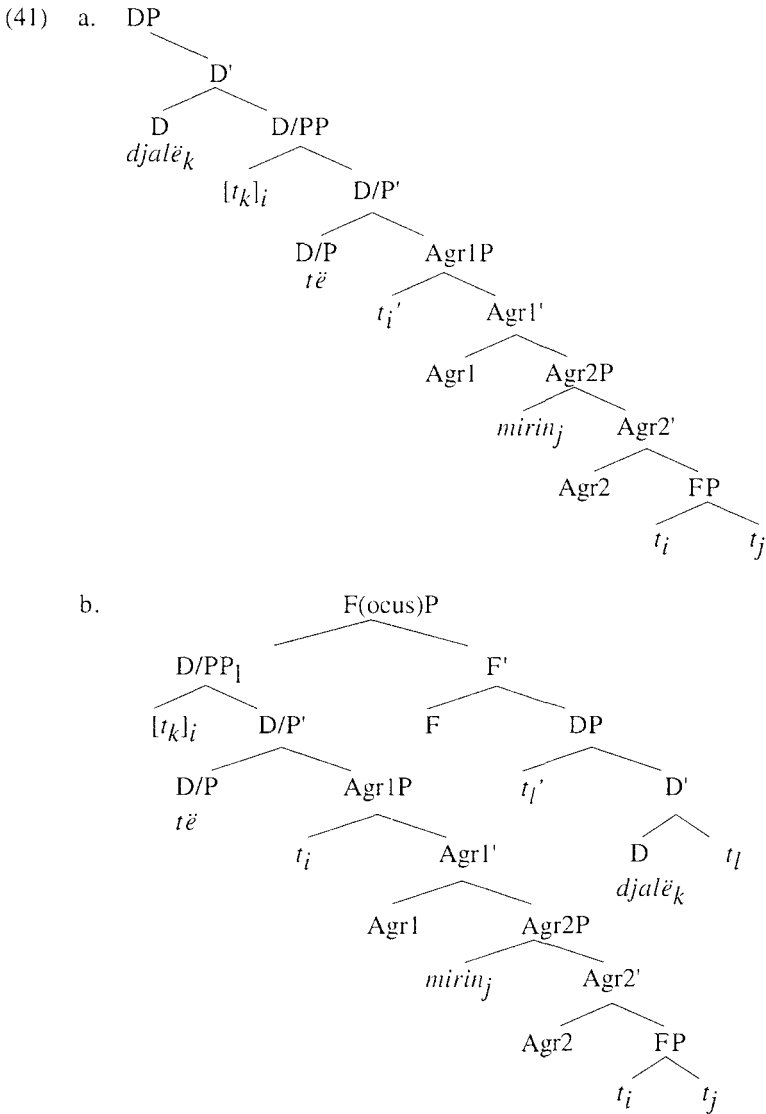
9. Adjectival determiners with prenominal adjectives

9.1. Albanian

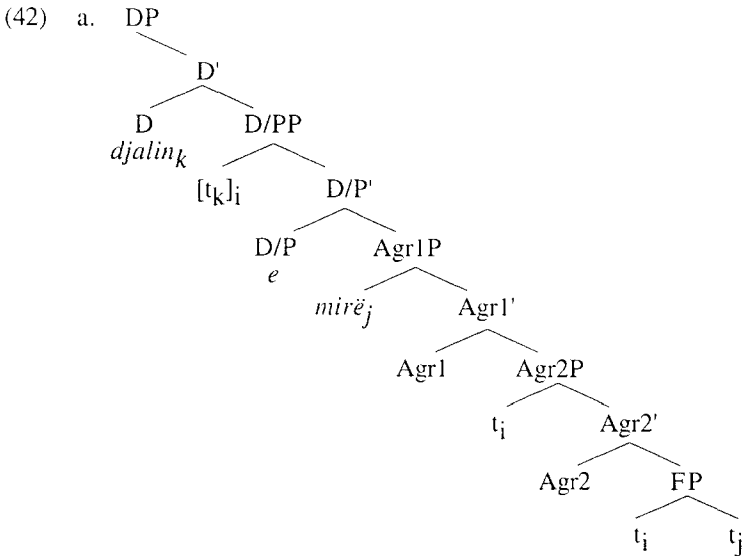
In Albanian DPs, adjectives may be prenominal as in (13a), repeated as (40):

- (40) *të* *mirin* *djalë*
 DET-MASC.ACC.SG good-DEF.ACC.SG boy-MASC.SG
 'the GOOD boy'

I propose for (40) the derivation in (41):



The structure in (41a) is the same as the structure in (22a), repeated here as (42a). Example (22a)/(42a) is the structure of (22b), repeated here as (42b):



- b. *djalin e mirë*
 boy-DEF DET good
 'the good boy (ACC)'

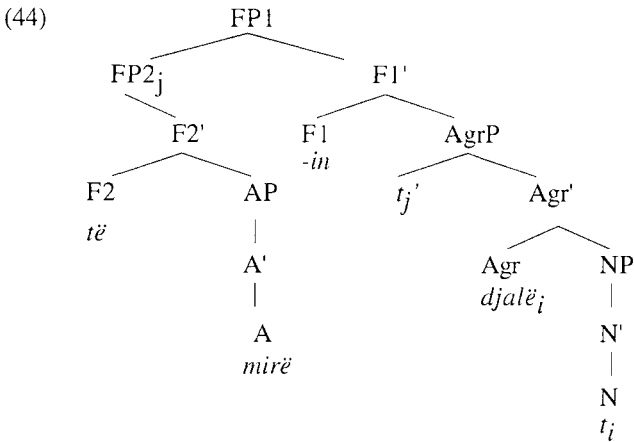
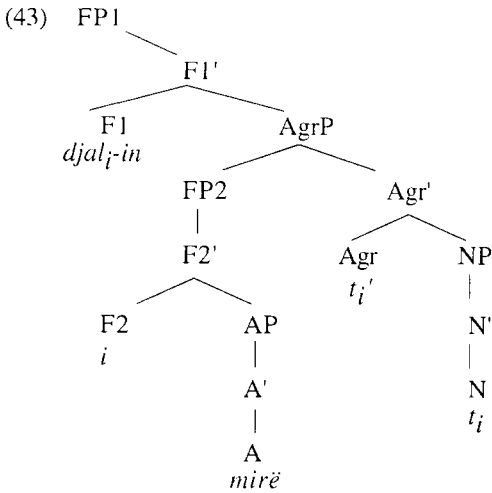
Examples (41a) and (42a) differ in the constituent that moves to Spec, Agr2P. In (41a), it is the adjective that moves to Spec, Agr2P, while in (42a), it is the noun. Recall that I take Spec, Agr2P to be a subject position, which, in Albanian, can only be occupied by a constituent bearing the Case and definiteness marker. Thus, this structural difference between (41a) and (42a) is directly reflected in the difference in Case and definiteness marking between the DPs in (40) and (42b). Examples (40) and (42b) constitute a minimal pair with respect to which element is marked for Case and definiteness. In (40), it is the adjective *mirin*, through the suffix *-in*, that is marked for Case and definiteness; in (42b), it is the noun *djalin*, again through the suffix *-in*, that is marked for these features.

The second difference between (40) and (42b), the word order—in (40), the noun follows the adjective, whereas in (42b) the adjective follows the noun—is accounted for through movement of D/PP [*të mirin*] to a higher A' position, presumably Spec, F(ocus)P, as depicted in (41b). This movement is motivated by a F(ocus) feature borne by the adjective *mirin*, as reflected in the third difference that holds between (40) and (42b), the interpretation. In (40), in contrast to (42b), the adjective has a +F(ocus) interpretation. In (41a), prior to movement of D/PP to Spec, FP, the noun *djalë*, like the adjective in (42a), moves first to Spec, Agr1P, then to Spec, D/PP, and subsequently left-adjoins to D. Under Agr1P, morphological features spelled out on the noun are checked, as is the case for the parallel movement of the adjective in (42a). As discussed with

respect to (22a)/(42a)), in section 5, the noun, *djalë* in (41a), moves to D to check its categorial N feature against the N feature hosted under this head (Chomsky 1995). When at Spec, D/PP the noun enters into a Spec-head agreement configuration with the adjectival determiner heading the projection, and since in (41a) the noun is not +definite, the token of the adjectival determiner appearing in this case is the nondefinite one (cf. section 6). I assume here, as does Chomsky (1995), that words enter syntactic derivations already formed. Here *-in* is a Case and definiteness marker. In Albanian, these markers can attach to [+N] constituents; thus, *-in* can attach to a noun as well as to an adjective stem, and both *djalin* and *mirin* are well-formed words. If *mirin* is part of the initial numeration, the derivation in (41) will go through. If *djalin* is part of the initial numeration, the derivation in (42a) will go through. A final remark is due here with respect to the obligatory appearance of the Case and definiteness marker on the adjective and not on the noun, when the former has a focus interpretation: strings like *të mirë djalin* are ungrammatical. In descriptive terms, in an Albanian DP, the Case and definiteness marker, *-in* in the examples at hand, is borne by the first constituent on the left that can bear it (cf. (40) and (42b)). I propose that on its way to Spec, F(ocus)P, the D/PP constituent *të mirin* must go through Spec, DP so that it can escape the DP (cf. (41b)). Furthermore, apart from the categorial N feature checked by the noun that is hosted under D, another categorial feature, namely D, is hosted under D as well. This feature can be checked either by a constituent at Spec, DP or by a head left-adjoined to D. A Case and definiteness marker, like *-in* in (40), is also a categorial D-feature marker. If, finally, we assume that a constituent at Spec, DP must check the categorial D feature under discussion, we can explain why the adjective must obligatorily bear the Case and definiteness marker suffix, *-in* in (40), when it is proposed due to a +Focus interpretation. If the adjective were not marked with the Case and definiteness marker, the derivation in (41) would not go through: when at Spec, DP, the D/PP constituent would not be able to check the D categorial feature of D. In the derivation in (22a)/(42a), the categorial D feature is checked by the noun *djalin*, which independently moves to D to check its categorial N feature.

In sum, then, according to the proposal in (41), the derivation of the DP in (40) involves the same basic steps as in the derivation of the DP in (42b), that is, movement of the noun as an XP to Spec, D/PP (with subsequent movement of the noun as head to D) and movement of the adjective to the specifier of an agreement projection. These movements essentially create, in both cases, a relativizing structure, as discussed in section 5 above. The differences between the derivations in (41) and (42a), as discussed in the present section, offer a straightforward account of the differences between the examples in (42b) and (40). In this respect, the present analysis presents an advantage over previous proposals for the syntactic treatment of Albanian adjectival determiners.

Giusti (1992:225) proposes that Albanian DPs like those in (42a) and (40) should be analyzed as in (43) and (44) respectively, where FP1 and FP2 are functional projections:



In (43), FP2 rather than AP (cf. Cinque 1994) sits at Spec, AgrP, the presence of the adjectival determiner leading to the postulation of this functional projection. The occurrence of the noun to the left of the adjective in (42b) is accounted for in terms of N raising (cf. (43)). Examples like (40) are derived through raising of FP2 to Spec, FP1 (cf. (44)).

In (43) and (44), the differences in Case and definiteness marking between (40) and (42b) are treated independently of one another. In (43), the noun *djalin* bears the suffix *-in* by virtue of its raising to F1. In (44), the adjective *mirin* acquires the suffix *-in* through a phonological rule. Also, although in both cases the adjectival determiner, the head of FP2, in (43) and (44) is marked for Case, in (44), but not in (43), the adjective is marked for Case. That is, the Case feature (regardless of the mechanism under which it is assigned, presumably through F1), does not percolate down to the head of the complement of F2 in a configuration like that in (43), while it does so in the configuration in (44).

The most salient difference between (43) and (44) on the one hand and (22a)/(42a) and (41a), on the other, is the structural position of the adjectival determiner. In (22a)/(42a) and (41a), the adjectival determiner occupies a head position in the extended projection of the noun modified by the adjective, whereas in (43) and (44), the adjectival determiner is a head in the extended projection of the adjective, occupying a specifier position of the extended projection of the noun. This difference between the present analysis of Albanian adjectival determiners and Giusti's (1992) proposal is further discussed in section 10.1.

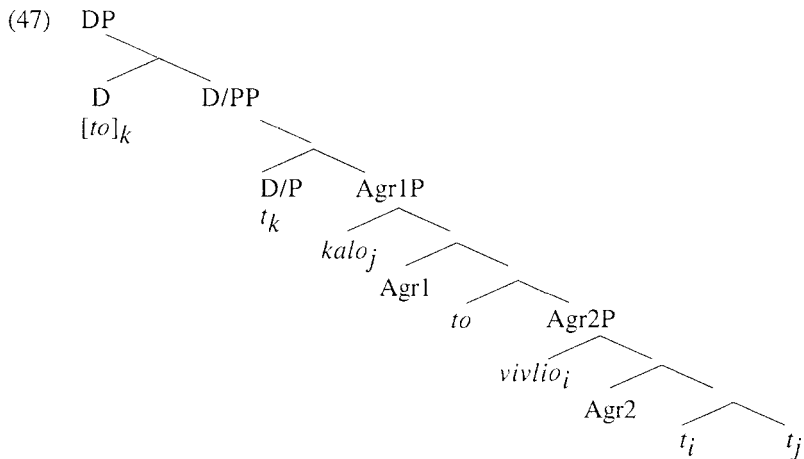
9.2. Greek

Like Albanian, Greek allows for prenominal adjectives as shown below:

(45) *to kalo vivlio*
 the good book
 'the good book'

(46) *to kalo to vivlio*
 the good the book
 'the good dress'

I propose for an example like that in (46) the structure in (47):



The structure in (47) is the same as that in (24), with an extra step in the derivation, movement of the topmost definite determiner *to* to D. That is, the structure of the DP in (46), is, modulo this last movement of the definite determiner *to*, an intermediate step in the derivation of (23b) as shown in (23a).

Thus, the major difference between Albanian and Greek is that in Albanian, the noun obligatorily raises to D overtly (two instances of this movement are

shown in (22a) and (41a)), whereas in Greek, this movement does not take place overtly.²² In both languages the noun raises as high as D/PP, obligatorily in Albanian (cf. (22a) and (41a)) and optionally in Greek, as can be seen from the availability of the two orders, noun-adjective, and adjective-noun, as in (23b) and (46) respectively (cf. also the corresponding derivations in (23a) and (47)), with no difference in the interpretation. Finally, Albanian and Greek differ with respect to the structure of prenominal adjectives in the two languages in that in Greek, as opposed to Albanian, prenominal adjectives do not have a focus interpretation, and thus, no movement of the sort proposed for [_{D/PP} [*të mirin*]] in (41b) can be motivated for Greek (compare the proposed structures of prenominal adjectives for Albanian in (41a) and (41b), for Greek in (47)).

In Androutsopoulou (1994, 1995), I took the structures of (45) and (46) to be as in (48) and (49), respectively:

(48) [_{DP} [_D *to*] [_{AP} *kalo* [_{NP} *vivlio*]]]

(49) [_{DP} [_D *to_i*] [_{DEFP1} [_{DEF1} *t_i*] [_{AP} *kalo* [_{DEFP2} [_{to} [_{NP} *vivlio*]]]]]]]

The two structures above differ only in that in (48), as opposed to (49), no definite determiner is generated under DEFP2 or DEFP1. Note that the structures in (49) and (47) are parallel in their essentials. Similarly, I will maintain here, without further discussion, that the surface structure of (45) is as in (50):

(50) [_{DP} *to* [_{Ag_r1P} *kalo_j* Ag_r1 [_{Ag_r2P} [*vivlio*]_{*i*} Ag_r2 [*t_i* *t_j*]]]]]

10. Adjectival determiners with Genitives

10.1. Albanian

Genitive formation in Albanian always involves an adjectival determiner, regardless of whether the genitive is an argument as in (51), a modifying genitive as in (52), or a predicate as in (53):

(51) a. *shkatërrimi i qytetit*
 destruction-DEF DET city-DEF.GEN
 ‘the destruction of the city’

b. *arritjet e Skënderbeut*
 achievements-DEF DET Scanderbeg-DEF.GEN
 ‘the achievements of Scanderbeg’

(52) *njerëzit e qytetit*
 people-DEF DET city-DEF.GEN
 ‘the people of the city’

- (53) a. *Ky libër është i Janit.*
 this book is DET John-DEF.GEN
 'This book is John's.'
- b. *Ky libër është i Xhojsit*
 this book is DET Joyce-DEF.GEN
 'This book is Joyce's.'

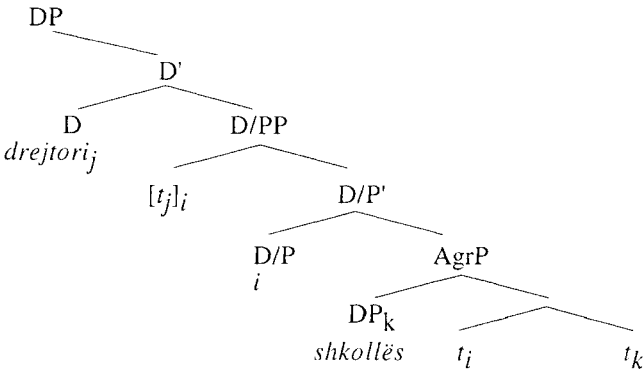
An argument for treating the adjectival determiners of Albanian along the lines proposed in this essay, more specifically for treating them as heads in the main structure of the DP that contains the adjective or the genitive DP rather than as heads within a specifier of this main structure, comes precisely from the use in this language of adjectival determiners with genitives. In the case of genitives, as in adjectival determiners with adjectives, the adjectival determiner agrees in gender, number, Case, and definiteness with the noun, *drejtori* in (54a), corresponding to the DP, which contains the genitive DP (the genitive DP corresponds, informally speaking, to the adjective). The case in (54b)–(54d) is similar.

- (54) a. *drejtori i shkollës*
 director-DEF.MASC.NOM.SG DET-MASC.NOM.SG school-DEF.GEN
 'the school principal(MASC.NOM)'
- b. *drejtoresha e shkollës*
 director-DEF.FEM.NOM.SG DET-FEM.NOM.SG school-GEN
 'the school principal(FEM.NOM)'
- c. *drejtorit të shkollës*
 director-DEF.MASC.DAT.SG DET-MASC.DAT.SG school-DEF.GEN
 'the school principal(MASC.DAT)'
- d. *drejtoreshës së shkollës*
 director-DEF.FEM.DAT.SG DET-FEM.DAT.SG school-DEF.GEN
 'the school principal(FEM.DAT)'

Thus, *i* in (54a) (and similarly for the other examples in (54)) is arguably, at some point of the derivation, in a Spec-head configuration with the noun *drejtori*, as in (55):

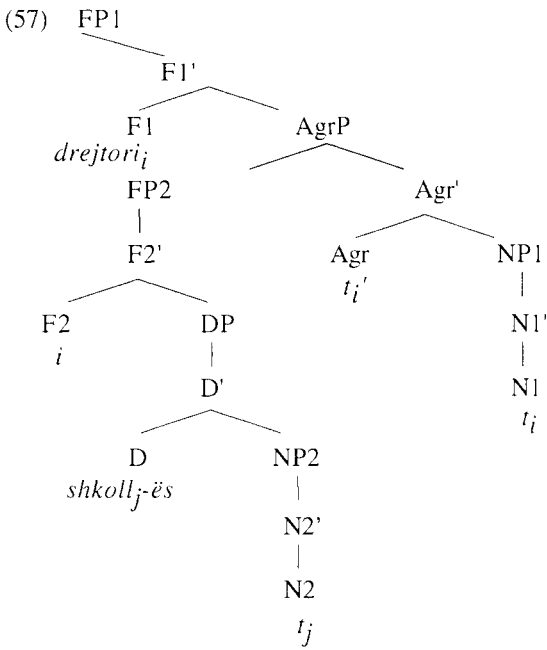
- (55) [_{XP} *drejtori* [_X *i*] [_{AgRP} *shkollës*]]

In (55), the genitive argument *shkollës* occupies the Spec position of a DP internal agreement projection, as suggested by a number of authors (Kayne 1993, Longobardi 1996, among others). Thus, the structure in (56a), which is parallel to that in (22a), emerges:

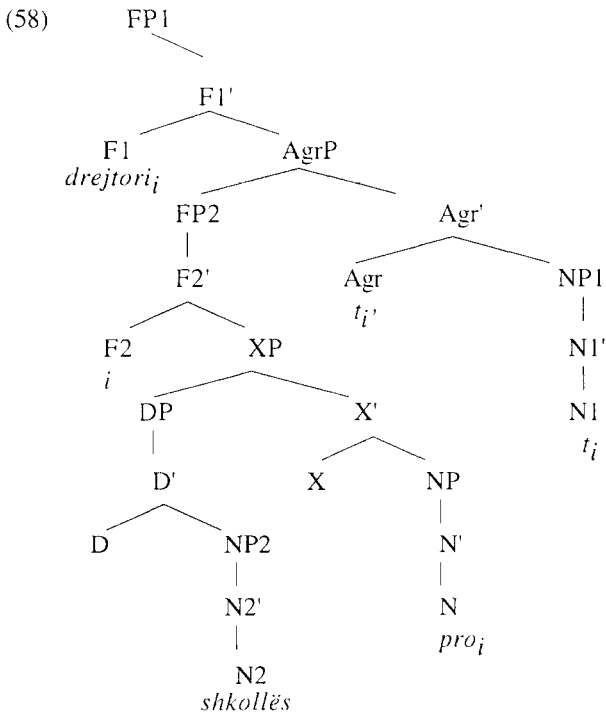
- (56) a. 
- b. *drejtori* *i* *shkollës*
 director-DEF DET school-GEN
 ‘the school principal’

As in (22a), the noun *drejtori* XP-raises to Spec, D/PP and then N-raises to left-adjoin to D. *Shkollës* is thematically the complement of *drejtori*. Thus, in (56a), we have to assume that *shkollës* raises out of the NP for Case reasons from the position complement of *drejtori* to a specifier position within the DP, quite probably as high as Spec, AgrP.

An analysis of adjectival determiners with genitives as in (56a) (this analysis would correspond to that in (22a)), rather than as in (57) below (this analysis would correspond to that in (43)), is in my opinion more plausible given the following considerations. In (57), the adjectival determiner—which crucially agrees in gender, number, and Case with the noun *drejtori*—takes as its complement the DP *shkollës*. That is, the functional head F2 (essentially a D-like functional head) takes a DP complement, that is, another functional projection. Crucially, each one of the two functional heads, F2 and the head D of the DP complement of F2, is the spell-out of the number, gender, and Case features of a different lexical head: F2 of the head of NP1, D of the head of NP2.



To overcome this problem one might propose a structure like that in (58):



In (58) the complement of F2 hosting the adjectival determiner is an XP, or minimally an NP, containing a *pro* with the same features as the noun *drejtori*: Such a structure was proposed by Dobrovie-Sorin (1987) in her analysis of Rumanian genitives like those in (59):

- (59) *prieten* *al* *regelui*
 friend-MASC a-DEF.MASC.SG king-DEF.MASC.SG
 ‘friend of the king’

which are of the same sort as those of Albanian (the Romanian element *al* in (59) corresponds to the element *i* of an Albanian example like (54a), discussed in this section). However, the structure in (58) enhances a problem already present in the structure in (57). Within a DP, there is a thematic relation between the noun whose extended projection the DP is and a genitive included in that DP. In a representation of genitives along the lines of (57) or (58), an element, the adjectival determiner that, crucially, does not belong to the extended projection of the noun in the genitive mediates and, from the point of view of a principle like the Principle of Full Interpretation (Chomsky 1986b), “disturbs” this thematic relation.

Grosu (1988), in his analysis of Romanian genitives, analyzes the Romanian element *al* as a head in the main structure of the DP containing the genitive DP, similar to what I propose here in (56a) for the corresponding Albanian element *i*. Also, the analysis of Aromanian genitives in Androusoopoulou (1998) is in the same spirit as that of Albanian genitives in this section.

In sum, on the basis of the discussion in this section, we can conclude that an analysis of Albanian adjectival determiners along the lines in (56a) is preferable to that in (57). Because the morphemes appearing before the adjective in examples like (22b) (cf. (22a)) and before genitives in examples like (54) (cf. (56a)) are identical, we would not want to have them base generated in two different positions. Thus, the analysis of Albanian adjectival determiners proposed in this essay (cf. (22a)) is preferable to that in (43).

10.2. Greek

In contrast to Albanian, Greek does not allow for overt adjectival determiners with genitives. That is, an example corresponding to the Albanian one in (54a), where an adjectival determiner precedes the genitive, is ungrammatical:

- (60) a. **o* *diefθindis* *o*
 the-MASC.NOM principal-MASC. NOM the-MASC.NOM
tu *sxoliu*
 the-GEN.NEU school-GEN.NEU
 ‘the school principal’
 b. *o diefθindis tou sxoliu*

It is plausible that this difference between the two languages is related to the constituent that moves to Spec, D/PP in a structure like that in (56a). Thus, in the Albanian example in (56a), the constituent that sits at Spec, D/PP is the noun *drejtori*, as shown in (61):

(61) [DP D [D/PP [*drejtori*]_i [D/P *i*] [AgrP [*shkollës*]_j Agr *t_i t_j*]]

On the other hand, in Greek, the constituent that sits at Spec, D/PP is the noun *δiefθindis*, as shown in (62):

(62) [DP *o* [D/PP [*δiefθindis*]_i [D/P] [AgrP [*tou sxoliu*]_j Agr *t_i t_j*]]

In (61), *drejtori* is overtly marked as [+DEF] through the suffix *-i*, while in (62), *δiefθindis* is not overtly marked as [+DEF]. Recall that in Albanian, definite nouns are distinguished from indefinite ones by their different endings, which vary for both definite and indefinite nouns with Case, while in Greek, definiteness or indefiniteness is not marked on the noun itself.

Thus, in (61), definiteness agreement obtains between *drejtori* and the head of D/PP, and D/P is occupied by the definite token of the Albanian adjectival determiner²³ (cf. also section 6). On the other hand, in (62), no such definiteness agreement obtains between the specifier and the head of D/PP, and no overt token of the adjectival determiner appears under D/P (cf. section 6). Recall that in Greek, overt adjectival determiners are morphologically identical to definite determiners, and furthermore, they occur only in definite DPs, obligatorily when a [+DEF] constituent sits at the specifier of D/PP (cf. the contrast in (30) in section 6).

11. Conclusion

In this essay, the DP internal structure of adjectival determiners in Albanian and Greek is examined. I have proposed that in DPs containing adjectival determiners, like the token of the definite determiner *to* preceding the adjective in the Greek example in (63a) and the morpheme *e* preceding the adjective in the Albanian example in (63b), adjectival modification can be treated along the lines of the structure in (63); essentially, adjectival determiners are relativizing heads introducing a reduced relative structure (cf. Kayne 1994):

- (63) a. [DP *to* [D/PP *vivlio*]_i [D/P *to*] [AgrP *kaloj ... t_i t_j*]]
 the book DET good
 ‘the good book’
- b. [DP [*djalin_k*] [D/PP [*t_k]_i [D/P *e*] [AgrP *mirë_j ... t_i t_j*]]]
 boy-the DET good
 ‘the good boy’*

Furthermore, I have argued that in cases like that in (63), the noun raises as an XP to Spec, D/PP (in Albanian, subsequently the noun head-raises to left-adjoin

to D). Differences in the ordering of constituents within the DP between the two languages can be accounted for in terms of the category of the preposed XP, which contains the noun (cf. section 7). Raising of the noun to D is obligatory in Albanian, while raising of the noun to D/PP is optional in Greek (cf. section 9).

Appendix 1

In this appendix, I wish to refer briefly to two pieces of data introduced but not discussed in the main text:

(a) the fact that in Albanian, the adjectival determiner surfaces after an adverbial modifying the adjective, as in examples like (16a) in the text, repeated here as (1):

- (1) *domethënie jashtëzakonisht të madhe*
 significance-INDEF unusually DET great
 'unusually great significance'

(b) Albanian adjectival determiners obligatorily precede articulated adjectives (cf. note 3), even in predicative position, as in examples like (10b) in the text, repeated here as (2):

- (2) *Mësuesi ishte i lumtur.*
 teacher-DEF was DET happy
 'The teacher was happy.'

Examples like (1) would seem to indicate that in the structure in (23a), an extra projection should be made available between DP and D/PP. This, however, is incompatible with the main proposal in the text, as depicted in (23a). Thus, it seems to me that examples like (1) suggest an analysis of adverbial modification along the following lines: the adverb is generated under a projection, say AdvP, and the modified adjective, along with the adjectival determiner *të*, moves to occupy the specifier of the projection complement of Adv:

- (3) [_{AdvP} *jashtëzakonisht* [_i *të madhe*]; t_i]
 unusually DET great

so that adverbial modification can be licensed. The piece of structure comprised of AdvP and its complement projection should be generated higher than a DP, as in (4):

- (4) [_{DP} *domethënie* [_{D/PP} *të madhe ...*]]
 significance DET great

and (1) be derived through movement of D/PP to the specifier of the complement of Adv and remnant movement of the whole DP to Spec, AdvP (cf. (3)). In this case, we would have to assume that the adverb occupies the head of AdvP and that the target of the remnant DP movement is the specifier of AdvP.

With respect to examples like that in (2), at present, I have no concrete proposal for their analysis. In the spirit of the analysis put forward in this essay, I would have to assume that (2) is actually to be analyzed as having, informally speaking, the paraphrase in (5):

(5) *The teacher is the happy one.*

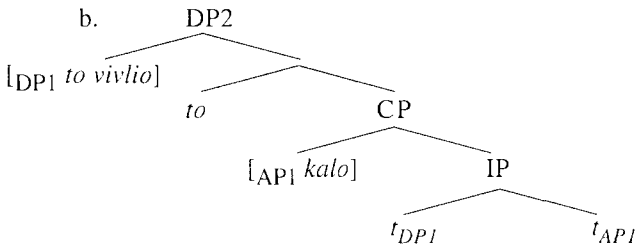
Appendix 2

As mentioned in the introduction to section 3, the occurrence of more than one definite determiner in a definite Greek DP containing adjectives, as in examples (1a) in section 1 and (38a) in section 8 of the main text, has been labeled “determiner spreading” in Androutsopoulou (1994, 1995). Alexiadou and Wilder (1999) recasts this work in terms of Kayne’s (1994) proposal for the analysis of relative clauses and DP-internal reduced relatives. Full discussion of this work falls outside the scope of the present essay. In this appendix, however, I want to address some issues Alexiadou and Wilder raise. Kayne’s (1994) proposal for the analysis of relative clauses is given in (21) in the text and repeated here as (1):

(1) $[_{DP} \textit{the} [_{CP} \textit{book}_i [_{C} \textit{that}] [_{IP} \textit{Mary read } t_i]]]$

Alexiadou and Wilder propose that the DP in (2a) has the structure in (2b):

(2) a. *to vivlio to kalo*
 the book the good

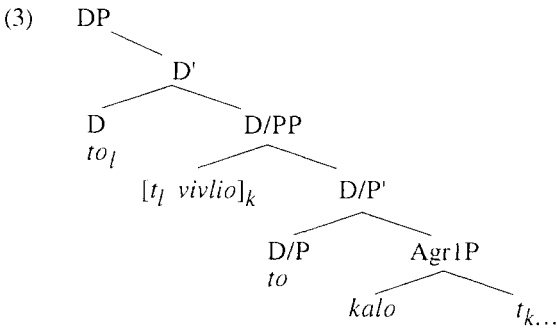


Structure (2b) is derived from (2c) and the structure of (2d) through movement of DP1 to Spec, DP2:

(2) c $[_{DP2} \textit{to} [_{CP} [_{AP1} \textit{kalo}] [_{IP} [_{DP1} \textit{to vivlio}] [_{AP1}]]]]$
 the good the book

(2) d *to kalo to vivlio*
 the good the book

In the main text, I proposed that a DP like that in (2a) has the surface structure in (3) (cf. also (24) in the main text):



That is, I claimed that the “extra” determiner preceding the adjective in (2a), which I labeled the adjectival determiner, occupies the head of the complement of D in Kayne’s reduced relative clause structure, shown in examples like (4) in the main text, repeated here as (4) ((cf. also (5) and (6) in the introduction and (25) in section 5 of the main text):

- (4) *le* [_{D/PP} *rouge* [_{D/P} *de* [_{IP} *crayon*]]]
 the red pencil

Since (1) is a full relative clause structure and (4) a reduced relative clause structure, the CP projection in (1) is essentially the same projection as the D/PP projection in (4). I understand the head of this projection as a relativizing head.

Alexiadou and Wilder, on the other hand, do not recognize the existence of adjectival determiners, and thus, they do not recognize a difference between these elements and referentially strong (informally speaking “real”) definite determiners. For them, as can be seen in (2b), the extra definite determiner in (2a) occupies the D position in Kayne’s relative (and reduced relative) clause structure. Thus, essentially, they propose that a DP like that in (2a) contains two DPs. This kind of analysis, apart from the problem the authors acknowledge in note 8, faces the problem my original analysis (and the present one, which is in its essentials in agreement with Androutsopoulou 1994, 1995) avoided by the introduction of DEFP (cf. notes (11) and (3) above, as well as (49) in section 9.2 of the main text, and note (21)). It is unclear why the DP in (2a), which has the same referential possibilities as that in (5):

- (5) *to kalo vivlio*
 the good book
 ‘the good book’

would actually contain two DPs. It is clear that the extra determiner in (2a) does not have the semantic import of a prototypical D, and it cannot be assumed to be generated under a D of the usual kind. Alexiadou and Wilder claim that there is no evidence in Greek for a projection, other than the prototypical DP, hosting definite determiners. This is actually incorrect.²⁴ For instance, the definite determiner that always follows the demonstrative in Greek, as in (6), is a good candidate to sit at the head of such a projection (cf. also Karanassios 1992):

- (6) *afto to vivlio*
 this the book
 'this book'

In Alexiadou and Wilder's account, it is unclear what in (2b) motivates the movement of the adjective *kalo* to Spec, CP. I understand the movement of the noun to Spec, D/PP in (3) as being of the same kind as the movement of the noun to Spec, CP in relative clauses (cf. (1)). The noun moves to Spec, D/PP so that the identification relation holding between the adjective and the noun can be licensed (cf. the relevant discussion in section 5).

Second, Alexiadou and Wilder's generalization in (30) (Alexiadou and Wilder, 1999:319), the major argument for their analysis, repeated here as (7):

- (7) An adjective permits DS only if it can be used predicatively.
 appears to be incorrect in view of examples like those in (8) and (9):

- (8) a. *o kaimenos o mathitis*
 the pitiable the student
 'the pitiable student'
 b. **aftos o mathitis ine kaimenos*
 this the student is pitiable
 'This student is pitiable.'
- (9) a. *o proighoumenos o prothipourghos*
 the former the prime minister
 'the former prime minister'
 b. **aftos o prothipourghos ine proighoumenos*
 this the prime minister is former
 'this prime minister is former'

The adjectives *kaimenos* 'pitiable' and *proighoumenos* 'former' appear in determiner spreading contexts, as can be seen in (8a) and (9a), but they cannot be used predicatively, as it can be seen in (8b) and (9b), respectively. Consequently, examples like those in (8) and (9) must be explained away if one is to maintain, as Alexiadou and Wilder do, that in determiner spreading contexts the source of the adjectives is a DP-internal *BE* predication, and, furthermore, that what differentiates (2d) from (5) above is that in (2d), the adjective is base generated post-nominally in a predication configuration, with the noun being the subject and the adjective being the predicate (cf. (2c)), whereas in (5), the adjective is generated pre-nominally, as in (10):

- (10) [_{DP} *the* [*good* [*book*]]]²⁵

Third, a major point in Alexiadou and Wilder's work is that the two modes of adjectival modification exemplified in (2a) and (5) have completely different structures and are dissociated from one another. By dissociating the two types of adjectival modification, further exemplified in (11a) and (11b)²⁶:

- (11) a. *to mevalo kokino vivlio*
 the big red book
 'the big red book'
- b. *to mevalo to kokino to vivlio*
 the big the red the book
 'the big red book'

which essentially show the same ordering restrictions (cf. Androutsopoulou 1995 and section 8 in the main text), Alexiadou and Wilder have to stipulate that adjectival ordering restrictions cannot be explained in syntax, and to recur to a cognitive metric, alluded to in Sproat and Shih (1988, 1991), which, as they claim, is reflected in the order in which the predications are generated in the structure of (11b), shown as (ib) in note 26, and in the order in which the adjectives are generated in the structure of (11a), shown as (ia) in note 26. It seems to me that the stipulation of a cognitive basis of the observed adjectival ordering restrictions amounts to no explanation until a precise way of mapping cognitive saliency into syntax is available. Apart from this, if formal linguistic theory has nothing to do with these restrictions, as Sproat and Shih (1988, 1991) argue and Alexiadou and Wilder endorse, it would be unexpected for the scale established by these restrictions to govern only the ordering of multiple adjectives within a DP, as in examples like those in (11). Furthermore, if this cognitive metric imposes some restrictions on the order of the syntactic implementation of predications in a structure like that in (ib) in note 26, it is unclear why it does not impose a parallel restriction on the order in which the predicates are projected in examples like (12):

- (12) a. *To vivlio ine mevalo ke kokino*
 the book is big and red
 'The book is big and red.'
- b. *To vivlio ine kokino ke mevalo*
 the book is red and big
 'The book is red and big.'

Finally, Alexiadou and Wilder criticize my original account, where I assumed Abney's (1987) proposal, which treats prenominal adjectives as heads (cf. also note 9), for example in (5), because complement-taking prenominal adjectives, like that in (13), cannot be accommodated in such a structure:

- (13) *i iperifani ja to jo tis mitera*
 the proud for the son hers mother
 'the mother proud of her son' (lit. 'the proud of her son mother')

The problem was acknowledged in Androutsopoulou (1994), and it remains unsolved, whether one chooses to treat prenominal adjectives (whether in determiner spreading context or not) as occupying a head or as occupying a specifier position (as is assumed in Alexiadou and Wilder for adjectives in determiner

spreading contexts). Note that both Abney (1987), who treats prenominal adjectives as heads, and Cinque (1994), who argues that prenominal adjectives occupy specifier positions, use the fact that prenominal adjectives in English and Italian, respectively, do not take complements as arguments in favor of their respective proposals. Abney argues that prenominal adjectives do not take complements because their complement is either the NP or the extended projection of another AP. Cinque argues that prenominal adjectives do not take complements due to a "well-known restriction on maximal projections overtly found on a left branch, [which] is their inability to take complements on their right", as shown in (14):

- (14) *I suoi fedeli (*alla causa) sostenitori*
 his faithful to the cause supporters
 (Cinque 1994.3)

Thus, independently of the structure one assumes for prenominal attributive adjectives, what needs to be explained is why in Greek, among other languages, examples like that in (12) are grammatical, contrasting with the ungrammaticality of similar examples in English or Italian (cf. (14)).

Notes

The main ideas discussed in this paper were first presented at the GLOW 1996 Workshop on the Syntax of Balkan languages, University of Athens. I am indebted to the audience for their input. I am also grateful to M. Español-Echevarría and B. D. Joseph for comments, and to R. Kayne, A. Ralli, D. Sportiche, and D. Kallulli for discussion. The usual disclaimers apply.

1. The Albanian data in this paper come from Newmark, Hubbard, and Prifti (1982), a grammar of Standard Albanian, and the generous help of D. Kallulli, to whom I am deeply indebted.

2. Following Chomsky (1995), in (3b), I assume that *djalin* enters the syntax fully inflected and moves to D to check its categorial N feature against that of D. The last step in the derivation of (3b) is head movement of *djalin* to D.

3. Not all adjectives must bear an adjectival determiner in Albanian. Two classes of adjectives are found in the language: those that must always be preceded by an adjectival determiner (called "articulated adjectives" in traditional grammars), and those that are never preceded by an adjectival determiner (called "unarticulated adjectives" in traditional grammars). The two classes of adjectives are clearly distinguished, different adjectives belonging to different classes. Descriptively, the classification criterion appears to be a morphological one. Following the description in Newmark et al. (1982:184), the following adjectives are never preceded by the adjectival determiner: adjectives derived by an agentive suffix like *-ar*, *-tar*, *-ist*, *-ik*, *-iv*, *-or*, *-tor*, or *-ës*, for instance, *amtar* 'official', *vendimtar* 'decisive', *komunist* 'communist', *alkoolik* 'alcoholic', *objektiv* 'objective', *dëmëror* 'wintry', *punëtor* 'working', or *përës* 'drinking'; compound adjectives (with some rare exceptions like *i shumëndrituri Naim* 'the most-illustrious Naim'), for instance, *ditëgjatë* 'long-lived', or *ekonomiko-shoqëror* 'socioeconomic'; and adjectives derived from names of places, for instance, *tiranas* 'of, from Tirana'. In this essay, I concentrate solely on

adjectives bearing obligatorily an adjectival determiner and, more precisely, on the DP-internal syntax of these adjectives.

4. The alternation between the presence or not of Case and definiteness marking on the adjective is reminiscent of participle object agreement in French A'-moved participles, which show number and gender agreement by means of movement through AgrP (Kayne 1989).

5. That is, for a certain combination of gender, number, and Case, when the adjectival determiner immediately follows a definite noun, it has a form different from that in all the other positions in which it may appear. It should be noted here that there are combinations of Case, number, and gender for which the adjectival determiner does not change across all the positions in which it may occur (for more details, cf. section 6). Also, as we will see in more detail in section 6, in the singular genitive, dative, and ablative of the feminine, the form of the adjectival determiner immediately following a definite noun is no different from its form in all the other positions in which it may appear. Rather, for the singular genitive, dative and ablative of the feminine, the form of the adjectival determiner that precedes an adjective in the definite form (that is an adjective bearing a definite Case ending) is the same as the form of the adjectival determiner that immediately follows a definite noun (Newmark, Hubbard, and Prifti 1982:181).

6. Genitive is the conventional label for the forms, so called because they correspond to and derive from earlier Greek genitives; some of their functions, however, are prototypically dative, as in (i):

- (i) *edosa to vivlio tou Kosta*
 gave-1SG the book the-GEN Kostas-GEN
 'I gave the book to Kostas.'

7. The string *to vivlio kalo* (lit. 'the book good') is ungrammatical as a noun phrase but acceptable as a sentence, with an understood copula, meaning 'the book is good', as B. D. Joseph reminds me.

8. But see the following examples:

- (i) *tipota (to) exeretiko*
 nothing the special
 'nothing special'
 (ii) *kati (to) exeretiko*
 something the special
 'something special'

9. I will take no stand with respect to the category of FP or its internal structure. I propose the structure in (22a) as the surface structure. I assume that within FP, the relative ordering of the adjective and the noun is noun-adjective, in accordance with the intuition that the adjective, in the general case, is predicated of the noun; my proposal, however, does not crucially depend on this assumption. The treatment of adjectival determiners as relativizing heads is not necessarily dependent on the particular structural configuration in which attributive adjectives are taken to be base generated with respect to the noun they modify. For instance, the analysis of adjectival determiners put forward in this essay is not, *a priori*, incompatible with an analysis of attributive adjectives as a series of heads from left to right within the main DP structure, the rightmost taking the noun as complement, as in Abney (1987):

- (i) [DP [AP₁ [AP₂ [AP_n [NP

Neither is it incompatible with an analysis of attributive adjectives as occupying the specifier position of functional heads of the main DP structure, along the lines set forth in Cinque (1994):

- (ii) [DP [FP1 [AP1] F1] [FP2 [AP2] F2 ... [APn] Fn] NP

The structure in (ii) could be taken to be a derived structure rather than a base structure. Both in (i) and (ii), movement of an XP containing the noun to a projection complement of D higher than the adjectives, as in (22a) or (23a), is possible.

10. The Albanian Case and definiteness marker, *-in* in (22), can attach not only to a noun but also to an adjective (cf. the contrast between (13a) and (13b) in the text and the relevant discussion), that is, it has more independence than a regular (word-level) affix. Thus one might be led to view it as a clitic. However, in a theory like that articulated by Zwicky in the introduction of Nevis et al. (1994), which only recognizes words and nonwords, so that clitics are either deviant words or deviant affixes, this form could probably be treated as a "phrasal affix." Halpern (1995) treats the Bulgarian definite article, which shows the same sort of behavior as the corresponding morpheme in Albanian, along these lines. I am indebted to B. D. Joseph for this observation.

11. In Androutsopoulou (1994, 1995), where I took the adjectives to be base generated as a series of heads from left to right within the main DP structure (cf. (i) in note 9), I proposed the structure in (i) for the DP in (23b):

- (i) [DP [D
- to*
-]] [DEFP1 [DEFP2 t
- _j
-] [NP
- vivlio*
-]]
- _i
- [DEF1
- to*
-] [AP
- kalo*
- t
- _i

The two structures in (23a) and (i) are essentially parallel. DEFP1 in (i) (taken in the work mentioned above to be essentially an agreement head, named DEFP because its head is occupied by a token of the definite determiner) corresponds to D/PP in (23a).

12. In Androutsopoulou (1994, 1995), I named this projection DEFP. If the stand taken in this essay is correct, given the parallelism between D/PP in (22a) and (23a) and my DEFP1 in the structure in (i) in note 11, it is conceivable that it will be possible to show that the DEFP at the head of which sits the definite determiner preceding *vivlio* in (24) is actually another instance of D/PP. I leave the issue open for future research.

13. According to Higginbotham (1985), θ -identification takes place under the structural configuration of government holding between the adjective and the noun, if we assume for a DP like that in (26a) the structure in (i) (cf. Abney 1987):

- (i) [DP [D
- to*
-] [AP [A
- kalo*
-] [NP [N
- vivlio*
-]]]]

14. In contrast to Greek, in a language like English, where again the definite determiner is a free morpheme, the identification process in (27b) does not obtain, because only Greek has "the right kind of definite determiner," presumably one that potentially is referentially weak. I will not pursue further this issue here.

15. In (22a), the noun *djalin* is definite. However, the identification process in (27b) obtains also in indefinite DPs in Albanian, as indicated by the occurrence in this language of adjectival determiners in indefinite DPs (cf. section 2.1). This is so because in Albanian indefiniteness, like definiteness, is marked morphologically on the noun (cf. section 2). On the other hand, in Greek indefiniteness and definiteness, are not morphologically marked on the noun, and thus, in indefinite DPs, we do not expect the identification process in (27b) to obtain necessarily. I believe that θ identification, as in (26b), obtains in Greek indefinite DPs in which the adjective is prenominal, as in (i), while the identification process in (27b) obtains in Greek indefinite DPs in which the adjectives are postnominal, as in (ii) (cf. (30) and related discussion in section 6):

- (i)
- ena kalo vivlio*
-
- a good book
-
- 'a good book'

- (ii) *ena vivlio kalo*
 a book good
 'a good book'

16. In the singular genitive, dative, and ablative of the feminine, the form of the adjectival determiner immediately following a definite noun is not different from its form in all the other positions in which it may appear. Rather, for the singular genitive, dative, and ablative of the feminine, the form of the adjectival determiner that precedes an adjective in the definite form (that is, an adjective bearing a definite Case ending) is the same as the form of the adjectival determiner that immediately follows a definite noun. An example is the 'substantivized articulated adjective' *së ardhmes* in (ia) below, which involves the form *ardhmes*, an adjective in the definite form. In *së ardhmes*, the form of the adjectival determiner, *së*, is the same as that immediately following the definite noun in (28b) in the text. On the other hand, in (ib), the form of the adjectival determiner immediately preceding the adjective *afërt* is *të*, which morphologically identical to the adjectival determiner in (28a) because in both (28a) and (ib) *të* follows a form in the indefinite: in (28a), the noun *vajze*, and in (ib), the "substantivized articulated adjective" *të ardhmeje*. Also, the form of the adjectival determiner that precedes *ardhmeje* in *të ardhmeje* in (ib) is again *të*, because *ardhmeje* is an indefinite form:

- (i) a. *i së ardhmes*
 GEN DET(DEF) future
 'of the future'
- b. *i një të ardhmeje të afërt*
 GEN a DET(INDEF) future DET(INDEF) near
 'of a near future'

I will assume with no further discussion that for the case discussed in this note, as well, that is, for the singular genitive, dative, and ablative of the feminine (as for all the other combinations of gender, number, and Case discussed in the text), only the token of the adjectival determiner immediately following a definite noun is the definite token of the adjectival determiner, and that the coincidence in the form of the adjectival determiner preceding an adjective in the definite form with the form of the adjectival determiner immediately following a definite noun in the singular genitive, dative, and ablative of the feminine is not related to agreement in definiteness, at least not in a straightforward way. It may be that the exceptional behavior of the adjectival determiner for the singular genitive, dative, and ablative of the feminine is related to *inherent* Case assignment: the irregularity in the paradigm of the forms of the Albanian adjectival determiner discussed in this note obtains only in the inherent Cases, genitive, dative, and ablative.

17. I assume here that the indefinite determiner is not generated under D. In some ways, the indefinite *ena* is more like an adjective than an article; for instance, as B. D. Joseph points out, it is possible for a clitic possessive pronoun to attach to it, as in (i), in the same way it attaches to an adjective, as in (ii):

- (i) *ena mou vivlio* (ii) *to kalo mou vivlio*
 a mine book the good mine book
 'a book of mine' 'my good book'

Furthermore, the possessive clitic cannot attach to the definite determiner, as shown in (iii):

- (iii) **to mou vivlio*
 the mine book

18. I maintain that examples like (i), in which the noun is separated from its complement and which are also possible in Greek:

- (i) *o θavmazmos o meyalos ja ton Aristoteli*
 the admiration the great for the Aristotle
 'the great admiration for Aristotle'

have the structure shown in (ii). That is, that they involve remnant movement of the same XP that I maintain is preposed in (36) in the text:

- (ii) $[_{DP} o_i [_{D/PP} [_{XP} t_j \theta avmazmos t_j] [_{D/P} o] [_{Agr1P} meyalos_k Agr1 [_{YP} [ja ton Aristoteli]_i [t_j t_k$

In (ii), the PP *ja ton Aristoteli* 'for Aristotle' has moved out of the XP *o θavmazmos ja ton Aristoteli* prior to the movement of the latter to Spec, D/PP. The example in (iii) below should be derived from (36) in the text through the movement, proposed here, of the PP *ja ton Aristoteli* to a projection higher than XP:

- (iii) *o meyalos ja ton Aristoteli o θavmazmos*
 the great for the Aristotle the admiration
 'the great admiration for Aristotle'

19. The marked order would be that in (37b), requiring emphatic stress on *kokino* and being appropriate in a situation in which one wishes to refer "among big books to the red one."

20. The remark made in note 19, with respect to the contrast in (37), applies here also.

21. In Androutsopoulou (1994, 1995), I took the structure of (38a) to be as in (i), with subsequent movement of the head of DEFP1 *to* to the head of DP:

- (i) $[_{DP} [_{DEFP1} to \{me yalo [_{DEFP2} [kokino [_{DEFP3} to [_{NP} vivlio]]]]]]$

Constructions (39a) and (39b) are derived by movement of DEFP3 to Spec, DEFP2 and Spec, DEFP1, respectively; (39c) by movement of DEFP2 to Spec, DEFP1; and (39d) by movement of DEFP3 to Spec, DEFP2 and subsequent movement of DEFP2 to Spec, DEFP1. A final step in the derivation of (39a)–(39d) is movement of the hierarchically higher DEF head to the head of DP.

22. This difference between the two languages quite plausibly accounts for another contrast between Albanian and Greek. As shown in (ia), Albanian does not have split DPs of the sort exemplified in (ib) for Greek. In (ib), the adjective is contrastively focused:

- (i) a. **të kuqin bleva fustan*
 DET red-DEF brought dress
 b. *to KOKINO efera forema*
 the red brought dress
 'It is the RED dress that I bought.'

In Androutsopoulou (1997), I propose that examples like (ib) are derived as in (ii):

- (ii) a. $[_{TP} forema_i [_{VP} efera [_{DP} to kokino t_j$
 b. $[_{F(OCUS)P} [_{DP} to kokino t_j]_k [_{F(OCUS)} efera_j] [_{TP} forema_i [_{VP} efera t_k$

through movement of an XP containing the noun, minimally an NP, to a sentence-level projection TP, as in (iia), and subsequent movement of the remnant DP to a sentence-level F(ocus) P(hrase), as in (iib). Due to the fact that in Albanian the noun is obligatorily left-adjoined to D, the first step in the derivation in (ii), shown in (iia), is unavailable.

23. If the specifier of D/PP were occupied by an indefinite noun, the head of D/P would be occupied by the nondefinite token of the Albanian adjectival determiner.

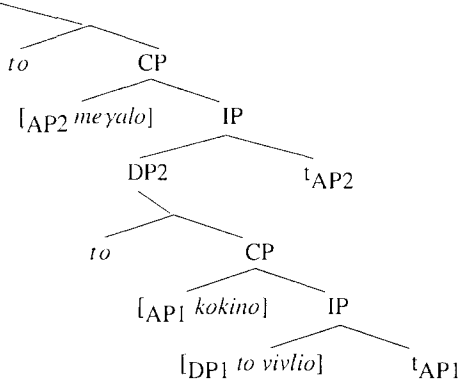
24. It is not correct either, as can be appreciated from the Albanian data in the present essay, and the work of others — see for instance, the literature dealing with determiner doubling in Scandinavian — that, as Alexiadou and Wilder claim, there is no evidence cross-linguistically for the existence of such a projection.

25. The authors remain noncommittal on whether the adjective in (10) is adjoined or occupies a specifier position of a functional projection.

26. According to Alexiadou and Wilder, (11a) and (11b) have the structures in (ia) and (ib), respectively:

(i) a. [DP *to* [*big* [*red* [*book*]]]

b. DP3



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Last Resort and V Movement in Balkan Languages

María Luisa Rivero

1. Introduction

This essay deals with language typology and comparative syntax within the Minimalist program of Chomsky (1995). Taking both a synchronic and a diachronic perspective, it examines aspects of the syntax of verbs in two Balkan languages with close syntactic ties, Bulgarian (Blg) and Greek (Grk). For Rivero (1994a), Blg and standard Modern Greek (MGrk) display similar clause structures. The two languages, however, differ considerably as to verb position, with citation forms for Perfect Tenses already showing a clear contrast. Blg must display the verb before the auxiliary, as in *Čel sŭm* 'I have read' and not **Sŭm čel*, while MGrk exhibits the auxiliary preceding the verb, as in *Exo đjavasi* 'I have read' and not **đjavasi exo*. I argue that word order differences of this type derive from movement processes affecting verbs. In Blg, a variety of operations that satisfy conditions of the PF interface raise verbs to the complementizer position or C and apply after spell-out in the PF branch of the grammar. MGrk also raises a verb to C, but the movement applies in the syntax before spell-out and satisfies conditions internal to the computational system. Earlier stages and some nonstandard varieties of Grk contrast with MGrk in displaying verb operations in the PF branch of the grammar to satisfy external conditions, so they have a closer resemblance to Blg.

In the Minimalist program, the Last Resort Principle in (1) (Chomsky 1995:257) regulates the necessity of movement:

(1) *Last Resort*

Move F raises F to target K only if F enters into a checking relation with a sublabel of K.

This condition requires that movement be to check the formal features of a functional item against the features of a (usually) lexical item that raises. Movement is licit only if it fulfills two clauses. First, the process must establish a

checking domain or raise an element to either adjoin it to the attractor, or to make it the specifier or the adjunct of the maximal projection headed by that attractor; I will call this aspect the *checking domain clause* from now on. Second, a feature in the raising item must match a formal feature of the target, that is, features cannot fail to match or mismatch; from now on, I will call this aspect the *matching clause*. The *checking relation* in (1) is successfully established only if these two clauses are satisfied. For Chomsky, the Principle of Last Resort is an intrinsic part of Move in the computational system. In this view, Move must by necessity be driven by formal feature checking, with other types of Move *a priori* excluded.

In this essay I argue that economy conditions, including the Last Resort Principle, can be violated. I maintain that not all movements are driven by needs internal to the computational system, or formal feature checking. Some are triggered by external needs of the LF or PF interfaces or what Chomsky calls *bare output conditions*. Here I concentrate on PF and examine overt movements that raise an item *a* to a target K (a maximal projection) to satisfy a PF condition imposed by a sublabel of K, not to establish a successful checking relation between attractee and attractor. This type of movement, then, is in violation of the Last Resort Principle. In the cases I consider, movement is required for the derivation to converge at PF, counting as *forced violations* of the Last Resort Principle. For Chomsky, cases where a movement that checks formal features must be overt for the derivation to converge at PF, or the forced violations of Procrastinate, do not constitute true economy violations. This suggests that the forced violations of the Procrastinate and the Last Resort Principle I identify in this paper, or overt movements without formal feature checking, could also count as not being true economy violations.

Under the perspective I develop, the economy conditions of the Minimalist model define both a core grammar and a peripheral grammar that deviates from this core. In this view, the overt operation that complies with Last Resort is the familiar rule in the core of the computational system that operates in the syntax before spell-out. By contrast, the operation that satisfies a PF condition but violates Last Resort belongs in the periphery. I argue that this type of rule nevertheless displays the same structural characteristics as the syntactic rule and is not phonological in nature, that it falls under principles that regulate the syntactic rule, that it has as a trigger a PF need of a functional category, that it has no effect on LF, and that it is blocked by overt rules of the computational system such as Merge and Move. These properties follow if the process applies in the PF branch of the grammar after spell-out and so in this sense is similar to the rules that Chomsky and Lasnik (1977) and Chomsky (1995) call stylistic.

In this paper, I argue that MGrk verb movement to C is restrictive and obligatory, which follows if the process applies before spell-out in the syntax as a formal feature-checking operation that obeys Last Resort. By contrast, standard Blg and both nonstandard variants and earlier stages of Grk exhibit more varied verb movements to C with an optional flavor, which follows if these processes do not check formal features in the syntax and apply in the PF branch to satisfy external requirements. As stylistic or PF processes do not check formal features,

they need not obey the matching clause of Last Resort. However, a subset of PF processes closely resembles syntactic rules in that it obeys the checking domain clause and only disobeys the other clause of Last Resort, but this type too fails to establish the successful checking relation required by (1).

That principles of economy can be violated but only at a cost can be motivated in view of diachronic evolution. Move in the computational system complies with Last Resort, which determines a core. The PF rules I examine here violate this principle and so should be more costly than computational rules. One case supporting this view is the history of verb movement of imperatives in Grk, discussed in section 2. In the early stages of this language, the process applies in PF and bears similarities with movements seen in Blg. However, in MGrk and in some nonstandard varieties, the operation is syntactic, which means that it came to lose the PF status that once made it parallel to processes in Blg. More technically, the Grk process that once applied to satisfy a PF interface condition and violated Last Resort now applies to successfully check formal features, or complies with Last Resort (Rivero and Terzi 1995). According to Rivero 1995, this diachronic change occurs even in those variants that preserve the PF interface condition triggering the process in its stylistic phase. This suggests that the Last Resort Principle regulates not only computational but also PF processes. Under the logic of markedness, peripheral rules such as PF processes may then acquire a less costly status by conforming to the economy conditions that regulate them.

The paper is organized in two parts. The first sets up the inventory of the stylistic rules of Blg, concluding with a brief comparison with standard MGrk. The second deals with Grk and is a diachronic discussion that considers nonstandard varieties. The global claim is that Blg, earlier Grk, and some nonstandard varieties display V-to-C processes that apply in PF, and that MGrk contrasts with them in lacking such PF operations.

2. Bulgarian

This section attributes differences between Blg and standard MGrk overt V-to-C movement(s) to a contrast in triggering factors: external or PF conditions in Blg versus internal conditions or formal feature checking in MGrk. Blg V-to-C responds to PF requirements, which allows movement to affect Vs that do not check their formal features in C, leading to variety in V-to-C constructions. By contrast, MGrk V-to-C obeys Last Resort, which restricts the process to Vs that check their formal features in C. Closer similarities between Blg and Grk are found when the diachrony of Grk is examined, as in section 2.

Blg shows three interesting kinds of V-to-C movement distinguished by type of fronted V and syntactic environment. I claim that each of these movements applies to satisfy a PF condition of the trigger and does not check its formal features, so it escapes the Last Resort Principle in (1). As to V type, a first kind of V-to-C is long head movement (LHM), which fronts an *untensed V* across a tensed Aux (2a). As to environment, LHM occurs in root clauses but is

absent from nonroot clauses when just Aux is present (2a–b). When *li* (Q; interrogative/conditional), which constitutes the topic of detailed discussion below, is also present, LHM occurs in both root and nonroot clauses ((3a)–(3b)). Environments where LHM is impossible or blocked include sentences with initial focus phrases, which I do not illustrate; *wh*-phrases, as in (4a); or Neg, as in (4b).

- (2) a. *Čel e knigata.* Blg
 read PF-3SG book-the
 'He has read the book.'
- b. *Znam [če e čel knigata.]*
 know that PF-3SG read book-the
 'I know that he has read the book.'
- (3) a. *Čel li e knigata?*
 read Q PF-3SG book-the
 'Has he read the book?'
- b. *Pitam [čel li e knigata.]*
 ask read Q PF-3SG book-the
 'I ask if he has read the book.'
- (4) a. *Kakvo e čel?*
 what PF-3SG read
 'What has he read?'
- b. *Ne e čel knigata.*
 NEG PF-3SG read book-the
 'He has not read the book.'

The V-to-C analysis of LHM constructions adopted here originates in the 1988 manuscript of Rivero (1994a), and has attracted considerable attention (see Rivero 1996 for partial references and some alternatives). Here I defend the view that the LHM process found not only in Slavic but also in Celtic and Old Romance applies in PF and shares with other stylistic verb movements identified below the following list of characteristics.

(I) LHM is similar to a syntactic rule in being triggered by a functional category as attractor. Triggers include the finite auxiliary (= T) in (2a) and the complementizer *li* (= C) in (3), whose PF requirements are discussed below. Stylistic rule triggers contrast with syntactic rule triggers only insofar as the first are entries that in the numeration display a phonological matrix that must meet well-formedness conditions at PF, while the second usually hold just abstract features and so may escape PF well-formedness conditions.

(II) LHM displays the structural properties of the rules of the syntax or operates on the basis of hierarchical structure expressed in X-bar terms; it is neither prosodic nor morphological. Evidence for this idea is given in Rivero (1996) and includes the asymmetry of LHM application in main and embedded clauses in (2)–(3), which is better captured in configurational and not prosodic

terms and is due to the different structural requirements of *li* and the auxiliary. In addition, sentences with fronted coordinated verbs such as those in (5) illustrate that the auxiliary need not follow the first prosodic word in the clause. This argues against prosodic inversion as first proposed by Halpern (1995). Likewise, the two verbs and the conjunction in (5) cannot, under the usual assumptions, form a morphological word with the auxiliary; this argues against the morphological merger treatment suggested but not truly developed in Embick and Izvorski (1994, 1995), among others.

- (5) *Vidjal i kupil sūm knjigata.* Blg
 seen and bought PF-1SG book.the
 'I have seen and bought the book.'

In the LHM analysis, the verbs in (5) front to C as coordinated heads, and the auxiliary in I or T is syntactically independent of them, which solves the problem. Because in this type of derivation LHM does not place the verb(s) in the checking domain of the attractor *sūm*, a successful checking relation cannot *a priori* result in this case, regardless of the feature content of verbs and auxiliary. However, in other circumstances LHM and other stylistic rules may establish a checking domain: in (3), for instance, the verb raises into the checking domain of *li* in C. I examine the consequences of this in detail later.

(III) LHM as PF rule applies to satisfy configurational PF conditions, not to check the formal features of the attractor. In cases such as (5), my claim is that the auxiliary as attractor must appear in PF in the complement of a head that is visible at that level. Fronting the verb to C fulfills this structural requirement, for it makes visible a position that takes as its internal or minimal complement domain in Chomsky's terms (1995) the projection headed by the auxiliary. These ideas are developed in more detail in Rivero (to appear). However, the verb may also move into the checking domain of the attractor, as in (3); thus, the stylistic rule need not differ in output from the ordinary syntactic rule whose aim is to check formal features. However, I argue later that when the derivation involves a PF process attractee, and attractor do not establish a successful checking relation, since they do not display matching formal features even when they form a checking configuration.

(IV) The stylistic rule does not feed LF. In the case of the LHM construction, the fronted nonfinite verb is neither the topic nor the focus of the sentence, however these terms are used. In all the languages with LHM, such constructions are by general consensus out-of-the-blue and neutral sentences if declarative and ordinary yes-no questions if interrogative. Another way to express this is that the sentence as a whole is in focus. This property follows if LHM applies in the PF branch and so cannot have an input in LF, unlike topicalization/focalization, which does.

(V) PF rules are characteristically blocked by Merge and feature checking Move in the computational system, if those operations have an output that satisfies the PF condition the stylistic rule is intended to satisfy. In particular, a well-known property of LHM is that it can never cooccur with *wh*-movement, as in (4a). This is because *wh*-movement applies in the syntax to check the for

mal features of the *wh*-phrase, and it also results in a PF configuration that meets the structural requirements the LHM rule seeks to satisfy. In (4), for instance, *wh*-movement lands in Spec-CP, making the C-head of this projection visible in PF. Thus, by general economy, LHM in the PF branch always blocks if *wh*-movement has already applied in the syntactic branch.

There are three major economy principles in the Minimalist program and they characterize the PF rules affecting verbs as follows.

(VI) Stylistic rules, including LHM, are like syntactic rules in that they violate the Procrastinate Principle, most often for convergence at PF. Thus, PF and syntactic processes are alike in being involved in derivations that are *forced* violations of Procrastinate.

(VII) Stylistic rules, and in particular LHM, obey the Minimal Link Condition. I demonstrate this aspect in detail in Rivero (in preparation), but omit discussion here. Thus, PF and syntactic processes are both involved in derivations that comply with locality.

(VIII) Finally, Last Resort is the principle that distinguishes the stylistic rule from the syntactic rule. The syntactic rule obeys this condition, but LHM, like other PF rules, fails to establish a successful checking relation. This naturally happens when the process does not establish a checking domain between attractee and attractor, as in (5), and also in cases where it does, that is, when it moves the verb into the checking domain of the target, as I demonstrate below. In Blg, a second kind of V-to-C that applies in PF fronts a tensed V, so differs from LHM as to V type. As to environment, this tensed V-to-C, dubbed here finite verb movement, resembles LHM. With just clitic pronouns (D) as the functional trigger, it is restricted to affirmative root clauses ((6a)–(6b)). With *li* (Q) as a functional trigger, fronting occurs in root and nonroot clauses (7a)–(7b)). Like LHM, this V-to-C is impossible with focalization/topicalization, and with *wh*-movement as in (8a), which represent cases of overt Move in the computational system. Verb fronting is also blocked by the presence of Neg, as in (8b), which results from Merge and not Move in the computational system:

- (6) a. **Četeš** ja. Blg
 read-PRES.2SG it
 ‘You are reading it.’
- b. *Znam* [*ce ja četeš.*]
 know that it read-PRES.2SG
 ‘I know that you are reading it.’
- (7) a. **Četeš** li ja?
 read-PRES.2SG Q it
 ‘Are you reading it?’
- b. *Pitam* [**četeš** li ja.]
 ask read-PRES.2SG Q it
 ‘I ask if you are reading it.’

- (8) a. *Koga ja četeš?*
 when it read-PRES.2SG
 'When are you reading it?'
- b. *Ne ja četeš.*
 NEG it read-PRES.2SG
 'You are not reading it.'

Finite verb movement resembles LHM in relation to the list of characteristics that identify rules that apply in PF. It is triggered by PF requirements of functional categories such as *li* (= C) or clitic pronouns (D or Agr), which impose different structural conditions, leading to the main clause versus subordinate clause asymmetries depicted above. Later, I discuss the requirements of *li* that trigger fronting in all clauses. Blg clitic pronouns impose PF conditions resembling those of the finite auxiliaries: namely, they must appear in PF in the complement of a head that is visible at this level. In their presence, then, the application of finite V-to-C is limited to a subset of main clauses and excluded from all embedded clauses (**Znam če četeš ja* for (7b)). Finite verb movement is also blocked by computational operations like Merge (the insertion of Neg) or Move (*wh*-movement). It has no foregrounding effect and therefore no input to LF, as these verb-initial clauses are topicless or focusless. As to the three economy conditions, I show later that this rule too escapes Last Resort or fails to establish a successful checking relation, even when it moves the verb as attractee into the checking domain of an attractor, such as *li* in (7). However, this process is like the syntactic rule in that it violates Procrastinate for convergence at PF—a forced violation—(**Ja četeš*), and obeys the Minimal Link Condition, as discussed in Rivero (in preparation).

LHM and finite verb movement as stylistic rules apply under similar conditions in Blg. However, these are two processes that should be kept apart for a variety of reasons. One reason is that not all languages need display both of them; another is that different historical stages of one language may display one rule but not the other. As to the first reason, Breton and Blg exhibit LHM with identical properties (Borsley, Rivero and Stephens 1996), but only Blg exhibits stylistic finite verb movement. This difference follows from the PF requirements of auxiliaries versus clitic pronouns in the two languages. That is, the Breton clitic pronouns, unlike the Breton auxiliaries, need not appear in PF in the complement of a visible head, which, unlike their Blg counterparts, allows them to be string initial. Also, most medieval Romance languages display stylistic finite verb movement, but only some display LHM. As to the second reason, Medieval Spanish is like Blg in that it displays both LHM and finite verb movement, but post-Renaissance Spanish only displays stylistic finite verb movement and has lost LHM (Rivero 1995). If the two processes are distinguished, it becomes possible to seek the factors that underlie these differences, such as the suggested contrast between the PF requirements of clitic pronouns and auxiliaries in Breton, which, according to some views, might mean that the first are not clitics while the second are.

A third kind of V-to-C with stylistic properties in Blg affects imperative Vs (9a). Such Vs are restricted to root clauses and are incompatible with interrogative or conditional Q (= *li*). Imperative V-to-C, then, is an exclusively root phenomenon but is similar to LHM and tensed V-to-C in not applying with Neg, (9b) or after a conjunction, as in (9c).

- (9) a. *Četi ja!* Blg
 read-IMP.2SG it
 'Read it!'
- b. *Ne ja četi!*
 NEG it read-IMP.2SG
 'Do not read it!'
- c. *Ela i ja četi!*
 come-IMP.2SG and it read-IMP.2SG
 'Come and read it!'

The trigger for this process is the PF condition of the clitic pronoun, and the rule blocks if computational means such as Merge in (9b–c) provide the required structure (**Ne četi ja!*, **Četi ne ja!*). Thus, this is an overt rule that violates both Procrastinate and Last Resort for convergence at PF (**Ja četi!*). As the rule cannot always apply, it does not operate to establish a successful checking relation between clitic as trigger and verb as attractee.

Another rule that may share characteristics with the three processes above is Stylistic Fronting. Most recently, Stylistic Fronting in Faroese and Icelandic has been treated as an operation driven by a PF feature (Holmberg 1996, 1997). The similar but not identical stylistic fronting of early Spanish (Lema and Rivero 1991) and of Blg (Embick and Izvorski 1994, 1995) could also belong in this category. Embick and Izvorski propose that in Blg, stylistic fronting inverts the participle and the auxiliary in nonroot clauses such as the conditional *Ako pročel e knjigata* 'If he has read the book,' in contrast with *Ako e pročel knjigata*. However, this Blg process and the rules listed above show important differences, suggesting finer distinctions among rules we might want to call stylistic. Alternatively, stylistic fronting belongs to a different class. Differences include the facts that: (a) Blg stylistic fronting does not satisfy a precise PF configational condition imposed by a functional category with a phonological matrix, (b) it foregrounds the verb or has an input in LF, which the three rules mentioned above do not, and (c) it is not blocked by computational operations such as Merge or Move in the sense the three rules listed above are. This makes the distribution of stylistic fronting contrast not only with LHM, which it resembles most closely but also with finite and imperative verb movements. Furthermore, (d) stylistic fronting violates Procrastinate, but not for the reasons of convergence at PF involved in the other rules, since both the structure with fronting and the one without fronting are equally well-formed. In other words, this rule could be involved in derivations that count as unforced violations of Procrastinate, which the other three rules are not. In addition, I find it significant

that the order resulting from this Blg stylistic fronting sounds literary or archaic to many speakers—and is often reported as ungrammatical—while orders resulting from the three movements I call stylistic above are completely unmarked and always reported as grammatical. This suggests that stylistic fronting may have been productive in earlier stages of Blg but is now a remnant with unclear formal properties. As far as I can see, the other rules above are productive and do not experience changes. Finally, languages with LHM may lack stylistic fronting altogether, as in Breton; this suggests that the two processes should be kept apart, even if they bear a resemblance and can be viewed as PF driven at a deeper level of abstraction.

With the three stylistic verb movement rules in Blg now in place, I will motivate the idea that they satisfy a PF configurational requirement of the functional category that triggers them but escape the Last Resort Principle in (1) because they do not involve formal feature matching and so do not establish a successful checking relation. We saw above that in some cases stylistic rules do not establish a checking domain for the attractor, as in (5). By contrast, in other cases they establish such a domain, as in (3) and (7), which last represents a challenge to the idea that stylistic rules are not in general involved in formal feature checking; thus, I will now show that it too escapes Last Resort, since no formal feature matching obtains.

My proposal is that the Blg particle *li*, which is a functional category with a phonological matrix and occupies C (Rivero 1993), requires in PF a constituent with a phonological matrix (i.e., an overt item) in its checking domain, which can be an overt phrase in Spec-CP or an overt head adjoined to *li*, irrespective of the formal features this overt item may contain. Another way to express this requirement is that *li* imposes a PF condition that mentions a checking configuration, which is a phonological-like counterpart of the formal feature-checking condition of the computational system that mentions a checking configuration and in addition a matching clause condition, or the Last Resort Principle. When the PF requirement of *li* is not met in the computational system, it constitutes the trigger for the subsequent stylistic verb movement in PF. In this view, when computational processes place constituents in the checking domain of *li*, or when verb movements in PF also place the verb in that environment, the procedures are not triggered by the need to check the formal features of those constituents against those of *li*.

In LHM constructions such as *Čel li e knigata* and *Pitam [čel li e knigata]* in (3), *li* occupies C and attracts the nonfinite verb in main or embedded clauses in order to satisfy its PF condition. The sentences *Četeš li ja?* and *Pitam [četeš li ja]* in (7) exemplify that finite verbs are attracted to *li* in similar syntactic environments. Even though the verb is in the checking domain of *li* in all these cases, it is my view that the two heads do not share what Chomsky (1995) calls [–interpretable] features, so that the relation that is established does not count as the successful checking relation required by the Last Resort Principle in (1). In other words, these varieties of LHM and finite verb movement fulfill the checking domain condition of Last Resort, or its configurational part but not its matching clause, or its content part. Here, then, we have

derivations involving a stylistic process with the structural output of rules of the computational system but which nevertheless fail to involve formal feature checking.

Several phenomena suggest that the PF checking domain requirement imposed by Bulgarian *li* can be met without formal feature checking. In a few words, *li* is highly unselective in its requirement from a feature perspective. First, we just saw that both nonfinite and finite verbs are attracted to this functional head, which suggests that neither raising head can be intrinsically equipped with the putative matching formal feature. One of the main uses of *li* is interrogative, as in (3) and (7), so it could be assumed that Q is checked in these questions. However, while a standard assumption is that Q can reside in (finite) inflection and raise to C, here it would have to reside in the nonfinite V in *Pitam* [*čel li e knigata*]. Second, phrases that front to Spec-CP in questions with *li* can be of the *wh*-type, as in (10a) but also of the noninterrogative type in (10b).

- (10) a. *Koj li dade knigata na Olga?* Blg
 who Q gave-3SG book-the to Olga
 'Who on earth gave the book to Olga?'
 b. *Na Olga li dadoxte knigata?*
 To Olga Q gave-2SG book-the
 'Was it to Olga that you gave the book?'

This also suggests that *li* has no formal feature to be checked against the feature of the fronted phrase, so it need not impose feature matching, providing support for the idea that the verb moves in PF to satisfy an external requirement of *li*. Thus, fronting to Spec-CP in the computational system as in (10) checks an abstract formal feature either on C or on Spec-CP (but, crucially, not on *li*), places an overt constituent in the checking domain of *li*, and satisfies the external PF condition imposed by this item. Then, by general economy, stylistic verb movement in PF cannot subsequently apply.

Rudin, King, and Izvorski (1996) argue that on the one hand *li* may contain an optional focus feature that attracts an NP for formal feature checking in cases like (10b), and that on the other hand this feature is absent if the verb raises to *li* (recall that fronted phrases are interpreted as foci or topics but verbs fronted by stylistic processes never are). In an earlier work (Rivero 1997) I followed Rudin (1993) and took *li* to contain a focus feature as well but I now think that this idea cannot be correct. *Na Olga* in (10b) is undoubtedly a focus but this does not imply that the lexical entry *li* bears the required strong formal feature, since in the corresponding declarative clause without *li* in (11) *na Olga* is also a focus.

- (11) *Na Olga dadoxte knigata.* Blg
 To Olga gave-2SG book-he
 'It was to Olga that you gave the book.'

Arguments to the effect that the phrase before *li* is a focus can be replicated for equivalent fronted phrases in declarative sentences without *li*, as in (11), so the

feature must be independent from *li*. That is, *li* occupies C and is thus symptomatic of clause structure but as focalization or topicalization applies in a parallel way in declaratives and interrogatives, this process must be triggered by a formal feature in Spec-CP or in C, not by a formal feature of *li* itself. I have already given a reason why verb movement (either finite or nonfinite) does not affect the informational status of the clause, while focalization does: the process applies in PF and so fails to input LF, while the second is a formal feature-checking operation before spell-out and may thus input LF.

Blg *li* can also satisfy its PF requirement by computational means other than Move, as in (12). Here I propose that *da* is a lexical entry and is merged either in Spec-CP (similar to English *whether*) or as a head adjoined to *li* in C (reminiscent of but not identical to English *if*). This lexical insertion via Merge satisfies the PF checking domain requirement of *li*.

- (12) a. *Da-li Olga šte ti dade knjigata?* Blg
 da-Q Olga FUT you give-3SG book-the?
 'Will it be Olga that gives you the book?'
- b. *Pitam se [da-li Olga šte ti dade knjigata].*
 (I) wonder da-Q Olga FUT you give-3SG book-the
 'I wonder if Olga will give you the book.'

When *da* is merged into the checking domain of *li*, stylistic finite verb movement and LHM cannot apply. This blocking effect of *da* is as expected under the hypothesis that verb movement applies in PF and therefore depends on the output of operations that precede spell-out in the computational system (Merge, in this case).

Li is an entry in the lexicon and so must contain a complex of features but it seems that they enter into interpretation at LF or are [+interpretable] in Chomsky's sense (1995) and therefore need not be eliminated or formally checked for convergence at LF. I have already rejected the option that *li* bears the formal feature for focus. The fact that the main use of *li* is in direct and indirect questions could suggest that this lexical item holds the feature Q, and that this feature can be considered [-interpretable] as a parametric choice. Rudin, King, and Izvorski (1996) point out, however, that *li* is also used in conditional clauses, as in (13) from their paper, which leads them to suggest that the feature is along the lines of nonassertion, not strictly (formal) Q.

- (13) *Zavali li dužd, šte si ostanem vkūshti.* Blg
 start-fall Q rain FUT reflex remain-1PL at home
 'If it starts raining, we'll stay at home.'

The semantic nature of this feature, then, reinforces my view that *li* holds Interpretable features, obviating a parametric choice as to Q. In its conditional use, *li* may trigger verb movement, as in (13), and can be preceded by a phrase, which is not illustrated. Thus, regardless of its Interpretable features, *li* must hold

in PF an overt item in its checking domain, with no mention of the matching clause, or identity of formal features between the two items. In brief, phenomena relating to Bulgarian *li* demonstrate that finite verb movement and long head movement are two stylistic processes that may establish a checking domain, while escaping the matching clause of Last Resort. From this perspective, stylistic verb movement bears a partial resemblance to the rules of the computational system. That is, it may satisfy external needs by using the same syntactic structure that the syntactic rules use to check formal features or satisfy internal needs.

Some PF movements, then, establish a checking domain like the rules of the syntax. However, unlike the rules of syntax, they escape the matching requirement. The Last Resort Principle for computational Move was given in (1) and is now repeated in (14). The PF movements that establish a checking domain but impose no matching then fall under a condition that resembles Last Resort (14), as the formulation in (15) suggests.

- (14) *Last Resort Principle*
(in the computational system)

Move F raises F to target K only if F enters into a *checking relation* with a sublabel of K.

- (15) *Checking Configuration Principle*
(in PF)

Move raises α to target K for α to form a *checking configuration* with a sublabel of K.

We just saw that Blg *li* imposes a PF checking configuration requirement satisfied by Merge or lexical insertion and overt movements of the computational system, including focalization. If the PF requirement of *li* is not satisfied via computational means, then stylistic verb movement applies. Slavic languages that list *li* in their lexicon show more restricted uses for this item, Czech being an interesting case in point. The use of *li* in this language suggests a diachronic reinterpretation of the PF condition for *li* that mentions a checking configuration or domain in (15) as the formal condition mentioning a checking domain and a matching requirement in (14), or Last Resort. Among others, Toman (1992) mentions that Czech *li* is not used in main clauses and is now found in literary style in both embedded questions and conditionals, as in (16). This item must trigger verb fronting as in (16a)–(16b) but cannot be preceded by a phrase that excludes focalization, as in (16c).

- (16) a. *Nevíme, mají-li dnes medovínu.* Czech
we.not.know have-3PL-Q today mead
'We do not know whether they have mead today.'
- b. *Máte-li pochyby, zatelefonujte na informace.*
have-2SG Q doubts, call at information
'If you have any doubts, call information.'
- c. **Pochyby-li máte, zatelefonujte na informace.*

The restricted use of *li* in Czech suggests that this lexical entry may soon be lost. However, the literary present register seems to have imposed on *li* a formal feature-matching clause in addition to the checking domain condition I hypothesized for Blg. Under this scenario, the nonassertion feature suggested for *li* by Rudin, King, and Izvorski seems to be paired to a strong [-interpretable] feature of the V type found in a nonroot C; this feature can only be checked under strict matching by the verb with the matching feature. If this view is correct, the verb movement triggered by *li* in Czech is not stylistic but a syntactic raising that complies with both clauses of Last Resort, that is, a feature in the verb that raises establishes a successful checking relation with the strong [-interpretable] feature of the projection of *li* as target, fulfilling Last Resort. Thus, it seems that stylistic verb movement is the type of PF process that is easily amenable to diachronic reinterpretation as syntactic movement, which our examination of Grk in section 2 will confirm from a different perspective. Czech also displays a stylistic variety of finite verb movement in cases like *Napiše to* 'He will write it' and stylistic LHM triggered by auxiliaries, with properties as in Blg (Rivero 1991). In other words, while the requirements of the functional head *li* can now be satisfied only via a verb, the PF requirements of other functional heads such as the clitic pronouns and the auxiliaries can be satisfied in view of the proper PF configuration, regardless of feature content as in Blg.

To summarize, PF verb movements display configurational properties like the rules of syntax but do not check formal features because they fail the matching clause of Last Resort, even when they comply with the checking domain clause. Blg has three verb movement processes that affect the position of nonfinite, finite, and imperative verbs and display these characteristics.

A very brief comparison with standard MGrk concludes this section. It is clear that this variety lacks both LHM and finite verb movement to C. Thus, when Blg displays these V raisings, these two languages that arguably share a common clausal skeleton contrast in word order. When Blg exhibits the order resulting from LHM as in *Pročel sům knigata* 'I have read the book', MGrk displays the auxiliary + verb order in (17a), since auxiliaries need not appear in an X-bar complement position in PF. Where finite verb movement applies in Blg, as in *Četes ja*, MGrk displays clitic pronoun + verb order, as in (17b). When LHM or finite V-to-C is blocked in Blg, the two languages exhibit parallel orders, as expected from their common clausal skeleton, including negative clauses as in Blg *Ne sům pročel knigata* and MGrk (17c). When stylistic verb movement does not apply in Blg, then, the two languages are very similar and display parallel orders for their negation, modal particles, pronominal clitics, finite auxiliaries, and verbs.

- (17) a. *Exo diavasi to vivlio.* MGrk
 PF-1SG read the book
 'I have read the book.'
- b. *To diavasa.*
 it read-PAST.1SG
 'I read it.'

- c. *Den exo diavasi to vivlio.*
 NEG PF-1SG read the book
 'I have not read the book.'

V-to-C exists in MGrk restricted to imperatives, as in (18) (Rivero 1994a):

- (18) *Diavase to!* MGrk
 read-IMP.2SG it
 'Read it!'

This process may look identical to the Blg counterpart that raises the verb past the clitic in *Četi ja!* but its status is very different. The MGrk V raises to C to check a strong formal V feature, so the process is obligatory, which accounts not only for clitic pronouns after V, as in (18) (**To diavase!*), but also for the fact that negated imperatives are ungrammatical, as in (19) (Rivero 1994a, Rivero and Terzi 1995). These clear phenomena easily distinguish MGrk imperatives from their Blg counterparts (Rivero 1994b).

- (19) **Min to diavase!* MGrk

Rivero and Terzi discuss MGrk imperative movement from the perspective of Greed in (20): that is, the imperative V raises to C to satisfy its own morphological properties.

- (20) *Principle of Greed*
 (Chomsky 1994.7)

Move raises *a* only if morphological properties of *a* itself would not otherwise be satisfied in the derivation.

Translated into the later version of Last Resort as in (1) or (14), imperative verb movement in MGrk applies in the syntax before spell-out and complies with the two clauses of the principle. That is, C as an abstract functional category contains a strong [-interpretable] formal feature that has a counterpart in the verb with the phonological matrix (= F). Move in the computational system raises V to the checking domain of C so that the feature on V can establish the required successful checking relation with the feature on C as a sublabel of CP (= K). That is, imperative verb movement in MGrk applies to satisfy an internal requirement of a functional category with an abstract formal feature, while movement in Blg applies to satisfy an external PF requirement of a functional category with a phonological matrix, or the pronominal clitic.

Thus, important syntactic differences between the present standard varieties of two Balkan languages follow from the absence in MGrk of V-to-C rules that escape Last Resort, since potential triggers for stylistic rules such as MGrk T in (17a) and D in (17b) do not impose structural PF requirements of the same kind as their Blg counterparts. Another difference is that in MGrk V-to-C ultimately responds not to PF but to LF requirements of V encoded as formal features, or its Logical Mood, which is not the case in Blg.

3. Greek in diachrony

This section shows that if Grk is examined from a diachronic perspective, differences from Blg are less striking than the examination of the two standards in section 2 might lead us to believe. Developing ideas in Rivero and Terzi (1995) and Rivero (1995), I argue that earlier stages of Grk exhibit PF requirements for both discourse particles and clitic pronouns resembling those of Blg and V-to-C rules that escape Last Resort and, in the specific sense defined above, can be called PF or stylistic operations. Although finite and imperative verb movements in Grk up to the end of the medieval period seem to constitute examples of such rules, here I concentrate on the rule raising imperatives, which survives in the later stages of all variants with different properties, and mention finite verb movement, which is lost in the standard variety, only in passing.

The evolution of Grk verb movement is interesting because it shows the effect of the Last Resort Principle on historical change. In my view, standard Grk came to lose the stylistic rule of finite verb movement and reinterpreted the former stylistic imperative verb movement as a core operation that now obeys Last Resort. I examine data not only from standard MGrk but also from Cappadocian and Cypriot Greek to reach the conclusion that this change may occur even when the PF requirements that formerly triggered the stylistic rules are still present. The changes that led to the situation in standard MGrk are not language specific, as Spanish in its Castilian variety has undergone a parallel evolution (Rivero 1995). They constitute examples of how a once peripheral rule comes to acquire core properties, in view of Last Resort as a principle of Universal Grammar regulating both the core and the periphery. Economy principles define a core grammar that under the logic of markedness can be violated but only at a cost. The Grk rule raising imperatives up to the Renaissance disobeys Last Resort in the same sense as its Blg counterpart discussed in section 1. In later periods of Grk and in some nonstandard varieties, however, this rule is reinterpreted as a process that falls under Last Resort or acquires core properties. The rule affecting finite verbs, by contrast, either disappears (standard MGrk) or retains some stylistic characteristics (Cappadocian or Cypriot Grk).

Imperative verb movement is documented in all periods and dialects of Grk but with different properties. In Ancient (AGrk), New Testament (NTGrk), and Medieval Greek (MedGrk), imperative raising does not check a formal feature but satisfies a PF interface requirement of a functional category with a phonological matrix such as a discourse particle or a clitic pronoun. By contrast, we saw that in standard MGrk, and we shall see here that in some present varieties, imperative verb movement checks a formal V feature located on the verb and the complementizer. We shall see that the PF requirements of the functional categories that triggered imperative raising in earlier periods such as the clitic pronouns are preserved in some varieties but the nature of imperative raising has nevertheless changed in them. I argue that such a change shows that the Last Resort Principle regulates Move and may guide diachronic evolution. As a result, PF interface requirements may remain constant but under appropriate conditions the raising that once satisfied them is nevertheless reinterpreted as a

process that checks a formal V feature or satisfies an internal condition of the core. Imperative verbs display the appropriate features to allow for such reinterpretation.

Recall that two types of imperative V movement were introduced in the previous section. In MGrk, the process applies for formal feature checking or obeys Last Resort, so it is obligatory. By contrast with MGrk, imperatives in Blg do not raise to C to check a formal feature; V movement to C exists, is optional, and applies to satisfy a PF need of a functional category with a phonological matrix, which is a pronominal clitic.

Rivero and Terzi (1995) assign to the rule that raises imperative verbs in Ancient Grk properties that resemble in great measure raising of imperative verbs in Blg (section 2), so let us recall their analysis. First, in this stage, Vs distribute alike, irrespective of their logical or semantic mood. As illustrated for indicatives and imperatives in (21)–(22), V may either be initial and precede the discourse particle or appear deeply embedded in its own clause when a constituent precedes that particle. In terms of the present essay the proposal is that in (21), verbs raise to satisfy a PF requirement of the discourse particle as a functional category with a phonological matrix, not to check a formal feature. In other words, verb movement is optional, as it does not check a formal feature contained in V against a formal feature of the appropriate functional category, that is, either C or the particle itself, which Rivero and Terzi (1995) place in a different projection from C.

- (21) a. *Eboulomēn men ouk erizein enthade.* AGrk
 wish-IND.1 P NEG contend here
 ‘And I wish(ed) I were not contending here (as I am).’
 (Aristophanes, *Ranae* 866)
- b. *Patakson men, akouson de.*
 strike-IMP.2 P listen-IMP.2 P
 ‘By all means strike but listen.’
 (Plutarch, *Themistocles* 11.3.6)
- (22) a. *Ego men ouk oida.*
 I P NEG know-IND.1
 ‘I, for my part, do not know.’
 (Xenophon, *Cyropaedia* 1.4.12)
- b. *Ta men poiei, ta de mē poiei.*
 these P do-IMP.2 these P NEG do-IMP.2
 ‘Do this but do not do that.’
 (Plato, *Protagoras* 325d)

In this view, the discourse particles of AGrk are very similar to Blg *li*: they are functional categories that introduce clauses, display a phonological matrix, and impose PF or external conditions. Those conditions are preferably met through computational operations such as Merge and Move but otherwise trigger verb

movement in PF such as finite verb movement in (21a) or the imperative verb movement in (21b). Computational rules block the PF processes, so focalizing *ta* in (21b), an instance of computational Move that raises this phrase to check a formal focus feature, prevents the raising of the verb *poei*. This is like the blocking in Blg of verb movement to *li* when a phrase is focalized. If discourse particles like *men* and *de* contrast one clause with another, as opposed to focalizing elements in their own clause, it could then be claimed that the focus feature checked by *ta* need not be on *men*, as I argued with respect to focalization and Blg *li* above; this suggests that discourse particles may contain just [+interpretable] features in no need of formal checking but may also impose PF conditions, a traditional idea now given a new turn. Rivero and Terzi (1995) front the verb in (21) to a vacant C and locate the discourse particle in a lower projection, dubbed WP; in this analysis, the verb is not in the checking domain of the discourse particle, which is unproblematic if the discourse particle bears no formal features that need checking.

Another consequence of the above analysis is that it accounts for why AGrk imperatives resemble their Blg counterparts as to negation, as illustrated in (22b). In contrast with MGrk, AGrk imperatives can be negated. As already stated, since V need not raise past the particle to check a formal feature, it can remain after Neg.

To summarize, imperative verb movement raises a verb to a designated structural slot, here identified as C, but is in AGrk a PF operation to satisfy an external requirement of the discourse particle. Finite verb movement displays similar properties in this period.

As Rivero (1995) points out, imperative syntax remains unchanged in NTGrk, as the following examples from Bauer, Arndt, and Gingrich (1967) and Moulton (1906) illustrate.

- (23) *Esesthe oun umeis teleioi.* NTGrk
 be-IMP.2 thus you perfect
 'Therefore, be perfect.'
 (Matthew 5.48)
- (24) a. *Nun oun poreuesthe en eirênei.*
 now thus go-IMP.2 in peace
 'Therefore, now go in peace.'
 (Acts of the Apostles 16.36)
- b. *Mē oun phobeisthe.*
 NEG thus fear-IMP.2
 'Therefore, do not fear.'
 (Matthew 10.31)
- c. *Mē mou haptou.*
 NEG me touch-IMP.2
 'Do not touch me.'
 (John 20.17)

That is, imperatives (and other Vs) are flexible in distribution and precede particles or pronouns if no other constituent occupies first position (23) but follow in the presence of a first constituent of any type (24). Imperatives are frequently negated: (24b)–(24c). Thus, imperatives can be in C and satisfy the PF requirement of the particle (23) but they can also be in a lower position (24), the essential contrast with MGrk. Sentence (24c) is particularly interesting, as it displays the now impossible Neg and the now impossible clitic pronoun before V, the two symptoms showing that V need not raise to C in NTGrk imperatives.

Less is known about later stages of Greek. However, to make a parallel with Blg clitic pronouns in section 2, Grk complement clitic pronouns can be used to illustrate that MedGrk imperative raising retains earlier characteristics and so still satisfies interface conditions, as I now show. For Taylor (1990), object clitic pronouns begin to lose Wackernagel properties (Wackernagel 1892) between Homeric Greek and Classical Greek. That is, in Homeric Greek they are in second position (2P) in the clause, while in the classical period they no longer need appear in 2P away from VP but roughly speaking can be in VP and away from 2P. For Horrocks (1990), by early MedGrk, complement clitics no longer display Wackernagel properties, are enclitic on the item that precedes them but dependent on V, and precede or follow this V under well-defined syntactic conditions. According to Mackridge (1993) (and Rollo 1989, cited by Mackridge), MedGrk clitic pronouns roughly exhibit the positions that in Romance are associated with the Tobler-Mussafia law (Tobler 1875; Mussafia 1886, 1898), with a few Wackernagel cases as archaic remnants. In main clauses, for example, V + CL is clause initial, and CL + V is found after *wh*-phrases and focused elements, recalling the situation described for present Blg in section 2. From these works, I conclude that from the earliest stages up to MedGrk, clitic pronouns are phonologically enclitic and therefore display a PF requirement that bars them from initial position. While retaining this basically prosodic restriction up to the medieval period, they evolve from (perhaps pure) Wackernagel clitics in the Homeric period to (perhaps pure) Tobler-Mussafia clitics in MedGrk. The Classical period may represent the first of the “mixed” stages (medieval Spanish is also mixed, as shown in Rivero 1997).

Mackridge (1993:330) finds that CL + V order with preceding focused constituents as in (25) is “valid as much for the imperative as for finite forms of the verb” and “the placement of the pronoun before an imperative is absolutely standard in such circumstances in texts from the twelfth to the fifteenth centuries, irrespective of geographical provenance.” From this it can be concluded that in the medieval period, imperative verb movement and finite verb movement display properties that are similar to those assigned to Blg in section 2 of this essay.

- (25) *Alla me eipe.* (AE 670) MedGrk
 Other things me tell-IMP.2
 ‘Tell me other things.’

The equivalent of (25) is deviant in MGrk; it is significant for my proposal that this order is also deviant in some modern varieties that preserve Tobler-Mussafia effects. As to imperatives, MedGrk is similar not only to Blg but also to early Romance; for instance, Old Spanish (OSp) clitics may precede imperative Vs, as in (26) from Rivero (1997):

- (26) *Mucho orgullosamente ge-lo demandat.* OSp
 very proudly to.him-it ask-IMP.2
 'Request it from him very proudly.'
 (Zifar 280)

Extending to MedGrk a by now familiar analysis, I assume that imperatives need not raise to C for formal feature checking or to comply with Last Resort and so can follow clitic pronouns. V raising past clitics fails to distinguish imperatives from ordinary finite Vs in this period. Thus, when the imperative or the finite verb precedes a clitic, V has raised to satisfy an external requirement of the clitic, not to check a formal feature, just like in Blg in section 2. In conclusion, this stage retains the PF-driven process that under appropriate circumstances allows any V to raise to C, and imperative raising does not yet have the characteristics that we gave to the process in MGrk.

We just saw that the relevant properties of AGrk remain stable for many centuries in the history of the language but, crucially, these properties are absent in some present varieties that have retained clitics that impose PF conditions reminiscent of those found in the earlier stages. Some present varieties offer a picture where imperatives are distinguished from other Vs in syntax, irrespective of the PF requirements of the clitics. In the standard, imperatives must precede clitic pronouns, which impose no PF requirement and can be first. It could then be assumed that earlier stages and the present differ due to the loss of PF interface conditions, which triggers two changes: imperative raising is reinterpreted as a rule checking the formal feature that V matches with C, while indicative raising to C cannot be so reinterpreted and is lost. These two changes occurred; evolution in imperatives, however, is not due to loss of interface conditions, since some varieties have preserved those conditions and still changed imperatives. Present varieties with restrictions on clitics include Cappadocian (Capp) and Cypriot Greek (CGrk). Based on Dawkins (1916), Janse (1994) shows that Cappadocian complement clitics display the MedGrk restrictions given by Mackridge, which leads him to suggest that both systems are identical. For example, CL is always adjacent to V but in main clauses the order is V + CL in initial position, as in (27a), and CL + V with a focused constituent or *wh*-phrase, as in (27b):

- (27) a. *Katevasen do.* Capp
 took down him
 'He took him down.'
 b. *Cis to epken?*
 who it did
 'Who did it?'

Cappadocian, however, is like MGrk, with clitics always postverbal with the imperative (Janse 1994. note 2). Even the particle *as*, usually found with CL + V order, co-occurs with imperative V + CL, as in (28).

- (28) *As* *parpame* *ta.* Capp
 PTC take.away-IMP.2 it
 ‘You take it away!’

From my perspective, then, imperative Vs must obligatorily raise past the clitics, which makes Cappadocian unlike MedGrk. As in MGrk, imperative raising checks a formal V feature located both in the substantive and the functional category as target. By contrast, the raising rule for finite Vs in (27a) has retained the characteristics of MedGrk and therefore satisfies interface conditions imposed by the clitic; it does not check a formal feature of V, C, or the clitic. PF requirements of clitics are the same in MedGrk and Cappadocian and differ in MGrk. Thus, change in imperatives must be independent of those requirements. I suggest that it is guided by the Last Resort Principle, which regulates not only the syntactic rules but also the rules that apply in PF.

CGrk imperatives lead to the same conclusion. Terzi (1995) establishes that in CGrk clitics have a Tobler-Mussafia status. For example, in nonimperative sentences, V + CL is for strict initial position, and CL + V goes with a focused constituent:

- (29) a. *Edkiavasa* *to.* CGrk
 read-PAST.1SG it
 ‘I read it.’
- b. *Touto* *to vivlio* *sou* *edoken* *i Maria.*
 this the book to.you give-PAST.3SG the Mary
 ‘This book Mary gave to you.’

Imperatives, by contrast, must display V + CL order (see (30)). Thus, Rivero and Terzi (1995) conclude that imperative raising in CGrk complies with Greed:

- (30) *Touto* *to vivlio* *dose* *tou!* CGrk
 this the book give-IMP.2SG to.him
 ‘This book give to him!’

In terms of the present essay, CGrk imperative verb movement successfully checks a formal V feature, or obeys the two clauses of Last Resort. By contrast, finite verb movement in (29a) is likely to be a PF process that does not check a formal feature and so disobeys Last Resort, and that still responds to the PF or external requirement imposed by the clitic, a topic requiring further study.

The evolution of imperatives to the status shared by these modern varieties suggests that Last Resort is the guiding force behind their path, with interface conditions playing a less crucial role; in other words, change in imperatives mainly depends on the Last Resort Principle imposing formal feature checking as a valued alternative. From a diachronic perspective, then, Greek is interesting

because it shows a connection between the two types of imperative raising. All stages and variants of Grk have this process but with a different status. Up to the Renaissance, there is no reason to distinguish between imperative verb movement and finite verb movement, a situation reminiscent of Blg. The two processes apply under similar conditions to satisfy interface requirements and not the internal requirements of the computational system, so they are what I dub stylistic. By contrast, after the Renaissance the difference between imperative verb movement and finite verb movement emerges, and the present varieties I have examined here have all reached a stage where imperative verb movement is obligatory and in my terms applies to check a formal feature of V against a feature of C. Finite verb movement has a different evolution: it is lost in the standard and retained in some present variants in ways that suggest that it does not respond to Last Resort considerations. That is, while imperative raising survives as a rule with core properties, finite V raising has a less clear fate.

My suggestion is that imperative verbs are morphologically equipped with interpretable features naturally connected to similar interpretable features in the highest functional projection of the clause, or C, that is, Logical Mood in the Fregean sense. If stylistic movement exists, as in the earlier stages of Grk, these features that need no checking can be reinterpreted as formal or [-interpretable] features that trigger movement of the verb to C under Last Resort. Irrespective of the PF requirements clitic pronouns may impose (notice that those requirements can also be satisfied if the rule is syntactic), this makes the process obligatory. Finite verbs, by contrast, do not have this type of interpretable feature, and their movement either retains a stylistic nature or is lost depending on whether PF requirements of the clitic pronouns are preserved or not. In other words, I view the change in imperative syntax in languages like Grk and Spanish, as being based on the “grammaticalization” of a [+interpretable] or semanticlike V feature into a [-interpretable] or syntactic-like feature, guided by the principle of Last Resort of Universal Grammar. This solution combines requirements of both PF and LF as mediated by the syntax. The phenomena I have discussed have attracted the most attention from a strictly prosodic perspective. However, such an approach proves unrevealing when applied to these diachronic changes, which to my knowledge have not been discussed in phonologically oriented treatments of clitics.

To summarize, the diachrony of Greek imperatives suggests that Last Resort as an independent principle of economy regulates not only the movement rules that apply in the computational system but also those that apply in PF and display structural properties, or the stylistic rules. Thus, this principle defines a core grammar that can be violated but only at a cost. For close to twenty centuries in the history of Greek, imperative movement has applied to satisfy interface conditions of functional categories with a phonological matrix that include discourse particles and clitic pronouns, and it has violated Last Resort. In this way, the rule resembles the verb movement rules of the stylistic type found in present Blg and seen in section 2. The change in imperative syntax that results in the present varieties I have examined occurs after MedGrk and turns imperative movement into a core process that checks a formal V feature or obeys

Last Resort. This change is completed not only in those varieties that lose interface conditions for clitic pronouns (the standard) but also in some varieties (Capadocian, CGrk) that retain them, so it is not caused by the loss of the interface conditions once responsible for triggering the process as a PF operation. The evolution of Greek is not language particular and has a close counterpart in Romance, in particular in the Castilian variety of Spanish. This language has experienced a change that is similar to what has been observed in standard Grk. That is, it too once had PF verb movement for imperatives, which it reinterpreted as a syntactic rule, and finite verb movement of the stylistic type, which it lost while losing interface requirements of clitic pronouns that prevented them from being string initial.

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